MODERN TRANSPORT

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CURRENT TOPICS

Great Eastern Electrification

ELECTRIFICATION of the North East London routes of the Great Eastern Line of the Eastern Region, inaugurated by Sir Brian Robertson, chairman of the British Transport Commission, on November 16, will give Enfield Town and Chingford a remarkable train service from November 21. The average steam speed to Enfield was 16 m.p.h. and this is raised to an average of 22 m.p.h. To Chingford the average speed of 18 m.p.h. rises to 27 m.p.h. To Lower Edmonton the outer-suburban Hertford East and Bishops Stortford trains will run non-stop at 35 m.p.h. and although they travel all-stations via Southbury thereafter the average speed to Hertford East will still be the respectable one of 28 m.p.h., while Harlow and Bishops Stortford get special direct services as part of the Cambridge main-line facilities, with extras beyond the basic two-hourly pattern throughout the day. The scheme provides a splendid series of branch connections via Audley End, Cambridge and Ely which in themselves are designed to tie in with the further improvements of the main-line services via Ipswich following the Clacton electrification. These suburban and outer-suburban railways, for which the Decapod experiment was carried out in 1903 and which had an amazing intensive steam service from 1920 onwards, are being further improved as a result of parcels traffic concentration and the rearrangement of freight services. From November 21 the diesel and electric revolution is such that only 5 per cent of Great Eastern Line passenger services will be steam hauled and one of the excellent features of the transformation, upon which the line traffic manager, Mr. W. G. Thorpe, is to be congratulated, is that the new timetable for the electric services tells the public the extent of the progress made.

Prototype L.T.E. Tube Trains

FIRST of three prototype tube trains went into service on the London Transport Central Line recently. Each is made up of four new motor cars, with all axles motored, and four older trailer cars modernised to run with the new stock as an eight-car train. The motor cars are four of the 12 driving motor cars ordered by London Transport from Cravens, Limited, of Sheffield, in the autumn of 1958 and were intended as the forerunners of a new type of stock for the Central Line. The recent decision to equip the Central Line with 1959 tube stock of the type already being delivered to the Piccadilly Line has meant that the three prototype trains will not now be the pattern for the future Central Line stock. They will, however, serve the public as part of the fleet of Central Line trains and provide a great deal of information and experience of new features of rolling stock and equipment design. The prototype motor cars are of larger passenger-carrying capacity than those at present in Central Line service; they have an aluminium exterior finish, with larger windows, extra space round the doors, rubber suspension, and fluorescent lighting. The cars were designed after special studies had been made to explore the most satisfactory form for tube cars, and they include a number of experimental features. One which will be noticed by passengers is the setting back of the draught screens from the entrances by a few inches, so that the doorways will be less obstructed by passengers standing with their backs to the screens. This feature, which will increase the effective width for passenger movement into and out of the cars, gives more room for standing passengers at the expense of only two seats per car and should reduce the time spent at busy stations in the peak. A detailed description will appear later.

No Solution in Covent Garden

MINISTRY of Agriculture plans for dealing with that hardy perennial, Covent Garden market, and the traffic it generates, have matured very slowly. It is two and a half years since a Bill, broadly following the spirit of the 1957 Runciman Committee report, was first projected — it appeared last week. The Bill will not dispel doubts as to the wisdom of the Ministry in handling this matter. The intention is that Covent Garden should be rebuilt on its present core, or in an area resembling it, but that it should be confined substantially to sales by sample. Much of the home and imported produce which nightly floods into it would be diverted to a new bulk warehouse, also handling empties, at the junction of Old Street and City Road. It seems, however, by no means certain that this project will be carried through, at least on that site. Yet it is difficult to see how the rebuilding of the present market can go ahead unless there is provision for the overflow elsewhere. Two things seem clear. The first is that the new Covent Garden Market Authority could get far better value for its £8 million grant from the Exchequer if it started afresh on a site outside Central London; the second is that, if the present rebuilding scheme on a limited site is persisted with, traffic can only be kept down to an acceptable level by irksome restrictions on users of the market, and the capital investment might not be fully realised. If the Finsbury warehouse does materialise there must be some duplication of services. By general consent road delivery to, and distribution from, produce markets is a factor which can be turned to advantage when replanning becomes necessary — no clearer admission of this is possible than a letter in *The Times* from a prominent Covent Garden salesman suggesting that a site at Hendon, far out in North-West London, would be perfectly satisfactory and would solve many of the problems. It seems that everyone is in step but the Minister himself.

Ship to Shore

SINCE the war close attention has been paid to means of speeding-up the turn-round of ships in port. As Mr. S. A. Finnis pointed out in a paper submitted last Monday to the Institute of Transport and summarised on page 3, it has been the subject of inquiry by three Government-appointed bodies, one of which—the Ports Efficiency Committee—is still in being as a spur to progress. Not surprisingly, in the all-important handling from ship to shore, bulk traffics have responded to treatment much more readily than general cargo, progress in which has been disappointingly slow. Petroleum products, for instance, are now being discharged, on average, at 2,000 tons an hour compared with 700 tons prewar and iron ore at over 3,500 tons a day as compared with 500 to 700 tons. The new plant at Immingham has shown itself capable of loading into ship an average of 600 tons of washed small coal an hour and is expected to reach 1,000 tons an hour. General cargo, with its variations in shape, size and weight, is much less susceptible to economic handling, but some innovations have been made, especially for regular streams of traffic in fairly uniform packages. Pallets and containers are used more. Mr. Finnis said that a good deal of export traffic is now put on pallet boards on arrival at the docks and remains there until taken off in the hold for stowage in the ship, intermediate movement being by fork-lift truck. Containers were introduced by the forerunners of British Railways as far back as 1926. They have for long been a feature of the Continental and Irish services and are now being seriously considered for long-distance and international traffic; the difficulty of assimilating the rectangular container with the curved shape of the ship is but one of the problems to be overcome. Although port operators are willing to co-operate in all matters of handling it is for the shipowner to assess the overall economic position; in most cases he will want a ship that will carry the widest possible range of traffics and can use many ports. "The advantages of specialisation are obvious," said Mr. Finnis, "but equally there can be disadvantages."

LEADING FEATURES IN THIS ISSUE

Report on Shipbuilding

THERE is a widespread, if ill-founded, feeling that British shipbuilding, at one time pre-eminent, is declining in efficiency. Apart from the somewhat discouraging annual statistics issued by Lloyd's Register there are the allegations of technical backwardness, bad labour relations and demarcation hindrances contained in the recent report of the Department of Industrial and Scientific Research. This has been circulating for some time within the industry, which refuses to accept it in full. Pressed last week in the House of Lords to publish the report, Viscount Hailsham, Minister for Science and Technology, said it would be a breach of faith to do so while discussions were going on. He did not regard the D.S.I.R. as having given an undertaking that it should not be published; the decision, however, must rest with that department and it would not be appropriate for him to give a direction. Earl Jellicoe, who said he had recently visited many shipyards, expressed unease at the wide gap existing between the better and poorer yards; in some there was little willingness by either management or men to apply scientific methods. Lord Morrison's objection to the suppression of a report because people in a certain industry may be sensitive about an investigation will no doubt receive wide endorsement. If the Minister for Science could criticise the shipbuilding industry in a newspaper interview why, he asked, should not the critical report of the D.S.I.R. be published? Private industries, he said, should no longer be allowed to regard themselves as free from any sense of accountability or responsibility to the nation; no doubt he was making a mental comparison with the national boards. Lord Hailsham reiterated that he had not ruled out the possibility of publishing the report. Leaving the Westminster realm of speculation, the practical work of reconstructing Tyne shipyards is being expounded in a symposium at the North-East Coast Institution of Engineers and Shipbuilders on Friday of this week. As a whole the British shipbuilding industry has spent something like £100 million on reorganisation. This fact alone belies the alleged effeteness.

Royal Prizegiving

HIGH point in the progress of the College of Aeronautical and Automobile Engineering was reached on November 8, when the Duke of Edinburgh, as current president of the college, officiated at the annual prizegiving. Thanking the principal, Mr. J. A. C. Williams, and congratulating him on the very encouraging report of college activities of the past year, the Duke said that all its supporters would be delighted at the progress of the college during the last few years. The year 1959 was of particular significance because it marked the 100th anniversary of the birth of Lord Wakefield of Hythe, the first president of the college, whose beneficial influence on its activities it would be difficult to overestimate. He was probably the greatest backer of aviation enterprise that this country had ever known. Continuing, the Duke said that the qualities of mind developed by technical training—honest thinking, logical thinking and patience—were valuable in any walk of life and there was no reason why students from the college should not find success in administration, in business, in politics or in anything else. In fact, there were a great many enterprises that would be greatly improved and invigorated by the influence of a trained engineer, provided he showed an aptitude for administration and the management of people. Having announced that Sir Matthew Slattery, chairman of British Overseas Airways Corporation, had agreed to be the next president of the college, His Royal Highness ended his address with a tribute to the founder, the late Mr. S. C. H. Roberts, to whom he unveiled a memorial.

Another Plan for the Canals

FOR the Conservative Parliamentary transport group proposals for dealing with the vexed inland waterways problem (see page 6) it can at least be said that they exhibit much that is logical reasoning. The M.P.s represented rightly urge that the present discussions on the future of the B.T.C. in general offer a chance to do something about the canals, a chance that may never be repeated. They have adopted the scheme for a National Waterways Conservancy which, in the interests of tidy arrangement and viability, should take over from the Commission all its waterways, paying or otherwise, while leaving carrying in the hands of British Waterways. Independent navigations would remain as they are. It is not suggested that there is a fortune to be made out of any form of waterway undertaking but the group does feel in particular that the sale of water, plus encouragement of leisure pursuits, could make a much larger contribution; it ventures no financial estimates, however. Even so it is acknowledged that many miles of canal must be closed, despite the possibility that interest on the money expended on closure may exceed the annual cost of maintenance. If one accepts that the B.T.C. should relinquish the most profitable sections of waterway and if its position as a carrier was safeguarded, there seems at least a hope of success in this latest solution. But it would be unrealistic to assume that anything more than the nucleus of A and B canals could be supported, even by the new Conservancy. The canal, and especially the narrow-gauge one, stands a poor chance against the diesel-engined lorry or a modernised railway system.

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The Editor is prepared to consider contributions offered for publication in MODERN TRANSPORT, but intending contributors should first study the length and style of articles appearing in the paper and satisfy themselves that the topic with which they propose to deal is relevant to editorial requirements. In controversial subjects relating to all aspects of transport and traffic this newspaper offers a platform for independent comment and debate, its object being to encourage the provision of all forms of transport in the best interests of the community.

We desire to call the attention of our readers to the fact that Russell Court, 3-16 Woburn Place, London, W.C.1, is our sole London address, and that no connection exists between this newspaper and any other publications bearing somewhat similar titles.

Public Passenger Transport

WHEN speaking at the dinner of the Public Transport Association last week, the Minister of Transport was no doubt inhibited by the impending White Paper; nevertheless, he managed to vary the mixture as before with some good points. Traffic in London is moving 9 per cent faster than this time last year, presumably because of wardens and stricter enforcement of parking regulations; he is anxious to institute more one-way streets and to eliminate right turns out of two-way streets; vehicles should be counted electronically and traffic lights phased quicker. He wants to stop loading and unloading at unreasonable times and to accelerate peak-hour traffic, but he is hampered by the shortage of trained traffic engineers. He is still emphasising the difficulties associated with urban motorways and their relationship with the long-term planning of cities, in which a one-man one-car basis of transport must lead to traffic jams. Sympathy with the Minister in these problems and in his efforts to get the national road programme on the move was expressed by Mr. A. F. R. Carling, chairman of the Public Transport Association, who nevertheless reminded his audience that the need for roadway modernisation had long been plain and that it came none too soon.

Tax Burdens

REITERATING once more in respect of the fuel tax how welcome some relief would be from the burden of what was, in effect, a special impost on the service the bus operators gave the public, Mr. Carling showed that they were still content and able to cross-subsidise a fair proportion of unprofitable routes in exchange for the protection they received on profitable ones and that although the industry had suffered contraction because of falling demand, it had done so without great waste; moreover, besides contracting where necessary, operators were quick to compete in every opportunity of serving new needs or changing tastes in travel. But for years the bus industry's contribution to the Exchequer had by far exceeded any reasonable computation of its share of the nation's outlay on roads, including the signalling of them. "To levy it on the most efficient users of the scarce road space in cities and on the providers of buses (often so little used) out in the country is, surely, far from sensible," he said. Addressing Mr. Marples, he expressed the hope that the latter would be the Minister of Transport who would finally make that thought effective with the Chancellor. On this subject of taxation Mr. Carling appropriately described London Transport as the biggest fuel-tax-paying undertaking on earth.

Speed and Size Restrictions

AS chairman of the P.T.A. he also appealed for relief from undue restrictions on speed and size of public service vehicles: "We hope you will soon be in a position to lay new regulations before Parliament which will allow us the same scope, in our time-tabling and in size of vehicle, as is now customary in progressive lands elsewhere. We believe we have shown ourselves efficient and responsible in other respects and we have no wish to lag behind in these. The legal speed limit for p.s.v.s has remained the same for 30 years. But what a change in our vehicles—in their braking and stability—during that time! What a change in the road surfaces, and in the roads themselves! The result is, for tested drivers of tested vehicles, that this 30-year-old limit has come to seem outdated and unrealistic, thus creating an artificial and uncomfortable situation, which is no help to good discipline either inside or outside our undertakings, or indeed to road safety. We hope lifting of the limit to 40 m.p.h. may soon be raised again as it was by your predecessor two years ago." As to vehicle dimensions, Mr. Carling remarked that this country was now well behind the rest of Europe (except Portugal) and still further behind North America in the size of its vehicles because the Government had not implemented the provisions of the Geneva Convention of 1949, to which Great Britain subscribed. If the regulation to legalise the well-established European standard were laid at once there would still be quaint, inefficient buses running to "Little England dimensions" in the mid-1970s. Yet, despite handicaps, the Road Traffic Act, 1930, had played its part in securing for Britain "just about the best bus system in the world."

United Front Needed

NOW that public passenger transport is suffering severely from the competition of private transport, few will doubt the desirability, indeed the necessity, for a united front by road and rail organisations. It was therefore disappointing that Mr. Carling appeared to be driving a wedge between rail and bus interests. He suggested that "railway modernisation should not be allowed to swallow vast sums of public money into projects of questionable viability if that has the effect of preventing the accumulation of funds which would otherwise be available for roadway developments, roadway developments for which the need is unquestionable, and for which the expenditure has been more than amply covered by the users—in advance." All credit to the Conservative Government for appreciating at last road and motorway needs and all credit to Mr. Marples for taking steps to enable local authorities to plan road works for five years ahead and to spend double this year's budget each year. Let us recognise, however, that that is hardly enough and that the "network of motorways by 1965" target will be hard to achieve, judging by present performance. But at least it should be satisfactory to Mr. Carling that the Government is increasing expenditure on the highways and cutting it on the railways. Nevertheless, the rail need is no less than that of the highway, for the Labour Governments of 1945-51 neglected railways as shamefully as they did the highways. Moreover, of the railway plan figure of £1,600 million (spread over 15 years, be it noted), almost half is derived from renewal funds, whilst a mere £105 million represented way and works in 1955, strictly comparable with the published highway figures. Motive power and rolling stock figures for the highway are concealed in the renewal costs of a multitude of bus and haulage undertakings, and signalling on roads gets mixed with police estimates. Misunderstandings on road and rail costs and capital expenditures are rife, but the implication that they are not fully understood by those associated with the railways in providing passenger transport is, to say the least, disturbing.

NEWS SUMMARY

AT last week's dinner of the Public Transport Association the chairman, Mr. A. F. R. Carling, again pleaded for remission of fuel tax, for Great Britain to observe the vehicle dimensions to which it subscribed in the Geneva Convention of 1949 and for the raising of the bus and coach speed limit at least to 40 m.p.h. on roads where private cars were allowed to exceed 30 m.p.h.

The American Ford company is making a bid for the privately-held shares of the Ford Motor Co., Limited, of Dagenham.

From Monday the Great Eastern Line of the Eastern Region has operated electric trains on the steam timetable of the Enfield Town and Chingford to Liverpool Street services, with some electrics from Bishops Stortford via the Southbury Line. The formal opening by Sir Brian Robertson took place on November 16 and the complete electric service to Enfield Town, Chingford, Hertford East and Bishops Stortford begins on November 21. Opportunity has been taken to remodel Cambridge main-line services and their connections, to revise freight workings and to concentrate parcels traffic on selected suburban stations.

The first Central Line eight-car train made up of prototype motor cars built by Cravens, Limited, and ex-Piccadilly Line trailers, entered service on November 9. A full description will appear later in this newspaper.

To facilitate Christmas traffic flow the Minister of Transport is expected to announce a "Pink Zone" for London much larger than that in operation last year. It will operate from November 28.

SHIPSIDE CARGO HANDLING

Prospects for Containers

*By S. A. FINNIS, E.R.D., M.Inst.T., Chief Docks Manager, Southampton, B.T.C.**

PORT facilities have come in for a good deal of criticism in this country since the 1939-45 war. In 1947 the Government set up a working party on the turnround of shipping. It made many recommendations and much has been done towards implementing these. Later there was a working party on increased mechanisation in the U.K. ports which reported in 1950, and in 1952 a ports efficiency committee was set up. This latter committee made two reports in 1952 and a third in 1956 and is still in being to maintain a continuing watch on the position.

Cargo handling operations have a direct bearing on the time a vessel spends in port and since a ship is only earning revenue when she is on passage, extra time in port is an added expense to the shipowner or charterer for which there is no corresponding return. The dock or port authority also has a vital interest in the turnround of a ship in that, by and large, the quicker the ship is finished and away, the quicker is the berth clear and ready for use by a further vessel. However, the shore berth is generally occupied for a period either in assembling traffic for export or in effecting deliveries of imported traffic and the port operator is fortunate to benefit unless the whole operation of cargo assembly or clearance can be completed in a shorter time so that not only the wet berth at which the ship lies is ready for use again but also the adjacent shed.

Since prewar coal exports have declined from nearly 40 million tons to 5 million, and exports other than coal, coke and patent fuel have increased in tonnage from about 10½ million to 25 million—almost by two and a half times. Imports (by weight) have also risen by nearly 70 per cent since 1938, but here one must take account of the substitution of oil for home-produced coal.

Special-Purpose Ships

From the point of view of handling there is a convenient division between bulk cargoes and general cargo. In considering the handling of bulk cargoes three important points should be noted. Firstly, that a high proportion of specialised and purpose-built ships are in use. Tankers are an obvious example, ore carriers are increasing in numbers, and in the coastal coal trade a large number of colliers has been specially built. Secondly, specialised and purpose-built machinery is generally in use for loading and/or discharge, and the berths are normally reserved for these traffics. Thirdly, in the case of most bulk traffics between regular ports adequate provision has been made for the handling of the traffic ashore. These are all of importance in making any comparison with other traffics where the throughout arrangements are not rationalised in the same way.

As to general cargoes, although the basic system of handling the packages in the ship is little different from what it has been for many years, much export traffic is now put on pallet boards on arrival in the docks and remains there until taken from the pallet in the hold for normal stowage, intermediate movements being by fork-lift or other mechanical truck. This method obviates the necessity for stowing the goods on the floor of the shed as one movement, and picking them up again to be barrowed to the ship's side for placing on a cargo board as the next. The number of handlings is reduced and the practice is both labour saving and quicker so far as the shore operations are concerned.

Loading and Discharge Rates

For this country the loading figure for general cargo is about 12-15 measurement tons per gang per hour, or say about half that in weight. In some cases as high as 28-30 measurement tons per hour is reached, but to get to this there must be some long runs of suitable traffic, for discharge speeds will be higher according to the commodity and may vary from say six deadweight tons per hour up to 30 or 40 tons for packages convenient for rapid handling. Some improvement has been made since prewar days where piecework rates have been introduced instead of time rates, and also where mechanical appliances have been introduced. Other factors have, however, militated against any considerable increase and on the whole the improvement has been small. Certainly no such wide success has been achieved as with bulk cargoes.

At the present time considerable interest is being shown in the development of containers which, although introduced for internal transport by the predecessors of British Railways as long ago as 1926, are now only being seriously considered for long-distance international traffic. On its Continental and Irish Services British Railways carries containers in considerable numbers and the vessels turn round in the day. Other firms do the same and there have also been considerable developments in the so-called "roll-on-roll-off" vessels. On the longer routes some use of containers is being made and refrigerated containers are also available. The development has, however, been small so far on the longer routes.

All-Container Ships

In the United States development has gone ahead more rapidly and special ships of considerable size have been built or converted for some regular services. These vessels—of the so-called cellular construction—are generally not suitable for carrying cargo other than containers of the appropriate type and size, and have special fittings which lock the containers into position in the hold. An outstanding example is the Pan-Atlantic line with services from New York to ports on the Gulf of Mexico which carry 226 containers of 23 short tons capacity. The vessels have three cranes of their own and the stowage is so organised that a container is taken aboard and another taken off with each movement of the crane. It is said that each ship can be loaded and discharged in 14 hours. The latest of the Matson Line's fleet running from San Francisco to Honolulu carries 296 aluminium containers of about 24 ft. by 8 ft. by 8½ ft. below deck, and another 56 on deck. On the service from New York to South American ports 476 containers are carried.

With vessels being constructed to run on the eastern Atlantic seaboard about 170 containers are to be loaded and discharged through stern doors by fork-lift trucks. This discharging rate represents something approaching 500 tons per hour, and from the figure quoted earlier for the Pan-Atlantic vessels, where a rate of some 750 tons per hour is claimed, it would seem that speeds far in excess of normal methods can be reached. The figures will, of course, refer to short tons, but it must be remembered that they are achieved with a minimum of labour—in the case of the Pan-Atlantic service only three men being employed per crane, one driver and two men attending the road trailers with the containers as they arrive and depart.

Baggage Conveyor

Of other appliances being developed it is interesting to note that the P. and O.—Orient Lines vessel *Oriana* will carry her own conveyor for handling baggage and stores to and from the shore. Stowed thwartship across the vessel the outboard conveyor can be extended either side and is connected with other conveyors running down the centre line of the ship. Chain conveyors carry baggage and stores to any required deck, the man in charge preselecting the appropriate deck by push-button control.

Another device to be tried out in the new ship *Canberra* is the cargo transporter which is in effect a boom housed within the ship with a moving carriage which has hoisting and traversing mechanism. When the ship is in port the boom is run out on rollers so that one end is over the quay and the carriage moves backward and forward with the load on a cargo platform. By this method hatch trunkage through the upper decks is avoided and the whole operation on the ship takes place under cover. There are also other advantages to the extent that the lifting and lowering movement is reduced and the load travels in a straight line. With side ports pallets or cargo boards can be carried into the ship or fork-lift or other trucks and where necessary be placed in position by a deck crane which plumbs the hatch.

Effect of Improved Methods

The figures which I have quoted can only be taken as a broad indication of what is being done but nevertheless it is clear that for bulk cargoes it is possible to achieve a rate of handling which can be expressed in terms of hundreds or even in some cases of thousands of tons per hour per gang, whereas for general cargoes one speaks in terms of tens of tons. In between these broad divisions there are many other commodities handled at different speeds, dependent on many different factors. Containers come fairly high on the list provided they do not have to be manoeuvred by hand under the coaming.

Many people are now asking whether the container is a possible answer to the problem. In this country, where rails and manufactured steelwork, and other products which are awkwardly shaped in relation to any type of packaging, make up an important sector of our exports it is difficult to think in terms of oceangoing vessels for containers only. There have, however, been considerable changes in recent years in methods of handling and one might quote sugar which now is dealt with as a bulk cargo and handled by grab. Some wines and sherry now travel in bulk while cement and gases and chemicals are also dealt with in this way.

There will presumably be further changes of this kind and if stowing the goods in the hold of the ship is the bottleneck in the present system, in principle at any rate it would seem right to think in terms of making up unit loads at the factory, assembling them on the dockside and doing little more than securing them in the ship. Similarly in the inward direction, the unpacking and sorting to mark which now goes on in the dockside shed would be eliminated for any traffic in containers and, subject to the usual formalities, distribution would be both quicker and simpler.

To the shipowner, of course, containers are by no means an unmixed blessing. The difficulties seem to increase as the distance increases and whereas containers and pallets have proved themselves on the short sea routes it is only now that they are coming into use on the longer voyages. An American port authority was recently quoted as saying that while containers might still be regarded as optional on the longer sea routes they were now a must for coastal voyages. The tendency is similar in this country.

Handling of Containers at Ports

From the port operator's point of view containers will ease some problems and bring others with them. Problems of equipment and parking space are bound to arise and an important factor on which some people seem to be in doubt is whether or not the containers should be filled and emptied on the dock premises. Apart from any customs requirements, it would seem that to do so would completely vitiate most of the benefits which stem from the use of containers, and merely transfer the whole problem of handling on to the shed floor. Such a system would be expensive in both space and money, and in fact impossible on any considerable scale.

It seems clear that the benefits of safe and speedy handling can only come from the throughout transit of goods in unit loads, and where full container loads for one destination cannot be made up at the originating point one would have thought that inland packing stations in busy industrial areas would be the obvious solution. Alternatively, it may be possible to devise small containers which fit together in multiples of three or four to make up one larger unit.

Whether or not it is possible for containers or any other alternative methods to be introduced is largely a matter for the shipowner, and it must be emphasised that cargo handling is only one of the problems to be faced when a ship is built. The shipowner is the only one who can attempt to assess the overall economic position and in many cases he will want his ship to be able to carry as wide a range of traffics as possible and to make use of many different ports. The advantages of specialisation are obvious, but equally there can be disadvantages. Whether the answer to the problem is specially built ships for containers, or an increasing number of containers carried with other cargo, or any other new method, the port operators will clearly do their best to co-operate to overcome whatever problems arise.

* Abstract of paper read before a meeting of the Institute of Transport on November 14.

LORRY—BUS—COACH

Alternatives to Unloading Ban

IN a critical examination of the inspector's report on the public inquiry into proposed bans on loading and unloading of goods vehicles in Newcastle upon Tyne, Mr. H. R. Featherstone, T.R.T.A. national secretary, says that the overall conclusion of the inquiry was that until the council had done more to restrict the unessential use of the city streets by private motorists, both by means of further regulations and by strict enforcement of existing regulations, it would be premature to restrict loading and unloading of goods vehicles. The report recognised the essential part which the goods vehicle plays in the business and economic life of the community; it also recognises this role should not be disrupted until such time as every practicable alternative has been tried.

Nevertheless there were certain features of the report which gave rise to concern. As had been feared, the experimental loading ban in Putney High Street was quoted as an example of a prohibition which was working well. No indication was given that the regulations in Putney and those proposed in Newcastle were in any way comparable. It was also not appreciated that an experiment which works well over a comparatively small area may prove quite impracticable when applied to a much larger area. If imposed the ban in Newcastle would be a very serious one. It would leave only five hours of the normal working day available for deliveries. The inspector's report admitted that such a ban would cause difficulty for vehicles travelling to Newcastle from long distances; that there was bound to be an increase in costs; and that some trade would be lost. Reading the report, however, it was difficult to avoid the impression that the full effect of such a ban in terms of disruption of trade was far from fully appreciated. If all the possible measures suggested by the inspector for alleviating traffic congestion are followed up by the council and if all the regulations are strictly enforced, then it should not be necessary to invoke such a drastic remedy as banning the goods vehicle, says Mr Featherstone.

Parcels Strike Denial

A SPOKESMAN for British Road Services says there is no truth in the suggestion that it has been paying hotel bills of a man alleged to have been given notice by a landlady following a police search of his lodgings. The report concerned the parcels depot strike in London, referred to last week.

Objections Urged to Delivery Ban

DERBY Corporation is seeking to introduce an order which will have the effect of prohibiting loading and unloading of goods vehicles between 8.15 and 9.15 a.m. and 4.45 and 6 p.m. on Mondays, Tuesdays, Thursdays and Fridays. The road transport organisations are opposing it and all member-firms of the T.R.T.A. whose business interests would be adversely affected by the scheme are being asked to forward details to Alderman W. G. E. Dyer, the divisional secretary, at 4 Oxford Street, Nottingham. At the same time objections against the proposed order should be sent to the Town Clerk of Derby to reach him not later than November 21, says the T.R.T.A. [Alderman Dyer is, of course, a member of Nottingham City Council.—Editor.]

Moving a 250-ton Crane

UNDER a sub-contract from Robson's Border Transport, Limited, Carlisle, McKelvie and Co., Limited, recently transported from Carlisle to Manchester docks parts of one of the largest diesel cranes ever built by Cowans Sheldon and Co., Limited. It is capable of lifting 250 tons and was ordered by the Quebec Cartier Mining Company of Canada. Six 16-ton eight-wheeled lorries, two lorries each carrying 58-ton pieces and one carrying a 14-ton load were required. McKelvie and Co., Limited, which has depots at Barrhead, Motherwell, Paisley and Manchester, carried the 58-ton sections.

A Leyland Octopus with a 15 cu. yd. light-alloy tipping body at the Bedfont pits of Hall and Company; right, Foden heavy-duty tractor of McKelvie and Co., Limited, Motherwell, hauling the 58-ton crane cabin referred to in an accompanying paragraph

Merchandise Transport Appeal

NOVEMBER 21 has been announced by the Transport Tribunal as the date for the hearing of an appeal by Merchandise Transport, Limited, against the decision of the Metropolitan Licensing Authority turning down its application concerning transfer of the Harris Lebus fleet of furniture vans. Merchandise Transport will be confronted by the B.T.C. and 62 other respondents.

Fines for Overloading

OVERLOADING and failure to mark heavy goods vehicles with the unladen weight caused fines to several operators in the North-West last week. Preston and District Farmers, Limited, was fined £10 for using an eight-wheeled lorry exceeding 24 tons. For Lancashire County Council it was stated that when the lorry was stopped and weighed there was an excess of 2 tons 4 cwt. In a letter, the company said the driver was new to the work and his judgment of the load—barley—was overestimated due to inexperience. F. and K. Transport, Limited, Colne, was fined £10 after it was stated that a six-wheeler was 3 tons 10 cwt. over the permitted maximum weight of 20 tons. Edward Henthorne and Company, Blackpool, was fined a total of £12 for using a goods vehicle with an excessive load on the rear axle and for not having the unladen weight indicated on the vehicle. A weights and measures inspector said the lorry was carrying a load of pit sand and when weighed the weight over the rear wheels was 10 ton 4 cwt. 3 qr. The maximum allowed was 9 tons. A spokesman for the company said the reason the unladen weight was not on the vehicle was because it had recently been repainted.

Minibuses in Scotland

STAFF of Scottish Omnibuses, Limited, have been asked to look out for illegally-operated minibuses which are said to be taking thousands of passengers previously carried by bus companies. Mr. James Amos, chairman of the company, says: "They are really an important menace. There is nothing trivial about it. It has got completely out of hand." The small buses complained of operated mainly in industrial and mining areas in Scotland.

Bus Advertising Here

BOLTON Transport Committee, supported by the town council, has decided to invite tenders for the advertising rights on corporation buses for a period of five years from April 1, 1961.

T.R.T.A. and Plating

THE national council of the T.R.T.A. has recently been reconsidering the proposal that goods vehicles should be plated and has decided that in view of the complexities it will not finally formulate its views until it receives details of the draft scheme now being prepared by the Ministry of Transport.

Protection Against Vandalism

DRIVERS and conductors of Liverpool Transport have been authorised by the general manager, Mr. W. M. Hall, to take any necessary steps to curb hooliganism on the undertaking's vehicles. Recommended measures are: to ignore bus stops where obvious troublemakers are waiting to board; to stop a bus indefinitely when difficult passengers refuse to leave; and, if necessary, to take a bus out of service to deal with the worst types of violence.

Maintenance Men Get 42-Hour Week

AS from November 14 the working week for repair and maintenance staff employed by British Road Services was reduced to 42 hr. without loss of pay.

Bus and Coach Developments

Rotherham Corporation and Mexborough and Swinton Traction Co., Limited, have applied for a joint bus service to replace the Rotherham—Conisborough trolleybus service. Rotherham will need also consent for outworking.

Widnes Corporation proposes a Monday, Friday and Saturday circular service from the Town Hall via Widnes Road, Deacon Road, Liverpool Road, and then over a loop taking in Royal Avenue, Queens Avenue, Coronation Drive, Hale Road and Blundell Road back to Liverpool Road.

On Tuesdays and Saturdays London Transport is, as an experiment, to divert buses on country route 386 (Bishops Stortford—Stevenage) to operate via Ardeley between Hare Street and Cromer. Routes in Harlow are being modified to provide facilities for Harlow Town Station. This involves diversion of 805 and 806.

London Transport Country Buses, which deferred introduction of its winter timetable in the north-east of its area to coincide with the Eastern Region electrification, will introduce its new timetables on November 23. Journeys on a number of services will be altered to provide better train-connections and at Broxbourne all terminating journeys on routes 327 and 393 will be diverted via the new station as will certain through journeys in peak hours.

Green Line coach service changes announced by London Transport for November 23 include diversion of route 712 (Dorking—Luton) to run via Colney Street, Park Street, St. Julians and St. Stephens between Radlett and St. Albans. In the Welwyn area 716 will be diverted between Stanborough and Welwyn via Stanborough Road, Broadwater Road, Peartree Lane, Bridge Road, Knightsfield and Hertford Road, and 717, which commences at Welwyn Garden City Station, will operate via Bridge Road, Cole Green Lane, Howlands, Chequers and Hertford Road to join its old route at St. Albans Road, Hatfield.

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APPEAL TO INDUSTRY

Better Stories Help Export Drive

AN appeal to industry for better quality publicity to support the export drive was made recently by the overseas controller of the Central Office of Information, Mr. Charles Hadfield, at its headquarters in Lambeth, London. "We are getting lots of stories as a result of the approaches we have made to industry and we are making good use of them," he said. "What we need, of course, is a constantly rising standard of material—stronger stories and special articles directed at individual territories. The aim is to make an increasing impact with industrial news in all our publicity media."

Mr. Hadfield was talking to directors and public relations officers of manufacturing companies and public relations consultants who visited the C.O.I. to study the operations by which the achievements of British industry are publicised overseas. C.O.I. output, which includes the written word, photographs, displays, films and radio tapes, is used in over 100 territories. About 70,000 words of news and features go out from Lambeth every day, much of it by radio, presenting Britain and the British viewpoint to the world. It is distributed by information officers of the Foreign Office, Commonwealth Relations Office and Colonial Office overseas. Material about industrial, business and commercial life occupies an important place. Sometimes direct inquiries from potential customers come back to the individual manufacturer, for wherever possible names of companies and products are included.

NORTH EASTERN MODERNISATION

New Signalling Installation for Pelaw

THE new power signalbox at Pelaw, North Eastern Region, brought into operation in October, marks another stage in the plan to bring colour-light signalling, with all its attendant benefits, to the whole of the Tynside area. Replacing the original gantry-type structure, which was damaged by fire in 1956 and again in 1958, it also takes over the work previously carried out by Springwell signalbox, which has been closed.

Standing at the junction where the main Newcastle—Sunderland line joins the South Shields and Washington branches, the new building is modern in concept and functional in design. A long, low, relay room is at one end surmounted by a glass encased control room, housing the switch console and track diagram and affording the signalmen maximum visibility. Adjacent is the power house, in which is a standby diesel driven alternator for use in the event of power supply failures, with three compressors providing air pressure for operating point mechanisms. Both buildings are of steel framed construction and have facilities for jacking up in the event of mining subsidence.

The new route-relay installation controls 11¾ track-miles (5¼ route-miles) from Felling on the Newcastle side to just short of Hebburn on the South Shields line; to Boldon Colliery on the Sunderland line and to Wardley on the Leamside Branch. There are 21 colour light signals of the multi-unit type, six of which have junction indicators; 10 ground signals of the position light type for controlling shunting operations, and 15 electro-pneumatically operated sets of points. The track under control is divided into 67 track circuits.

The new signalbox at Pelaw when under construction last April

Control Room

The control room houses a switch console and a panel carrying a diagrammatic plan of the track controlled. The panel is arranged in three sections mounted on plinths, the centre section being parallel to the console and each end section turned towards the console through an angle of 30 deg. The length of the console is 6 ft. 6 in., total length of the diagram is 12 ft. 3½ in. and combined height of the diagram and plinth is 7 ft. 3 in. The route switches are arranged in two tiers on the console, odd numbers on the upper tier and even numbers on the lower. Point switches (for individual operation of points) are above the route switches. Each signal has its route switches in one group, small indication lights being positioned above each group. Red and green indications are provided for the main signal and a white one for a subsidiary signal. Point indications are situated above the point switches. A normal and reverse white light indication is provided with a flashing white warning light should the points not be functioning correctly.

The point switches are of the three position type —normal, reverse and central. Except when required for individual point operation, these switches are in the central position and the setting of a route for the passage of a train can only be achieved by the route switches when all the point switches applicable to the route are in the central position. Block instruments are fitted into the console for use when an adjacent signalbox switches out. Absolute block working is enforced automatically through the block switches in the adjacent signalboxes; this, however, does not apply to Wardley signalbox where block working is continuously in operation.

Operating Procedure

The main signal controlling the entry of any train into a particular section of line can only be cleared when the operation of the route switch has set the points for the route required to be covered. One feature of the interlocking is a "points free to be set" relay. When this relay is energised it proves that routes which may conflict with the one desired to be set, are normal. The turning of the route switch operates a reverse relay in which circuit the points in the route are proved correctly laid, or free to be set in the position required. With the reverse relay energised, this operates the reverse route lock relay which locks, or sets and locks the points, in the desired position. This method of operation saves in wiring and the duplication of proving contacts.

The track is proved clear and the points correctly set before the main signal displays a clear aspect. A route switch must be restored to normal before a conflicting route can be set and the system is designed so as to prevent pre-setting. Approach locking is a further safeguard incorporated in the system. This ensures the route set up cannot be altered in the path of an oncoming train. The presence of a train on the track circuits approaching any signal automatically prevents the "normal" lock relay from being energised. This prevents any restoration of route until the train has either moved on to the overlap track circuit or the approach locking has been released by the automatic time delay releasing relay. Miniature plug-in relays save a good deal of space in the relay room.

Power Supplies

One power supply is obtained from the Electricity Authority at 415 volts, three-phase, and this is transformed into 650-volt single-phase current. In case of failure of this supply a standby diesel-driven alternator has been provided to cut in automatically to take the load. This alternator is accommodated in a new power house situated close to the signalbox. Also housed in the power house are three compressors providing the air pressure required for operating point mechanisms. Two of these are driven by 415-volt three-phase 50-cycle motors and the third is diesel-driven, this last acting as a standby in the event of failure of the three-phase supply.

Only one compressor is normally required to maintain the pressure in the reservoir tanks, but if this is not sufficient, the other compressor operates automatically. The air supply system is a two-pressure type. Warm air at about 125 lb. sq. in. passes from the compressors to the high pressure reservoir tanks, and then through a reducing valve into the low pressure tanks and ultimately to the air main, at a pressure of 50 lb. sq. in. being cooled in the process by an intercooling system. This results in a dry air system in the air mains.

Signals

The main signals are of the multi-unit type, some with four and some with three aspects. The lamps used in each aspect are 12-volt 16 to 23 watts, the 24-watt auxiliary filament being brought into operation on failure of the 16-watt main filament. The two-position light type shunting signals display a red and white light in the horizontal position for stop; the proceed aspect is indicated by two white lights inclined at 45 deg. The lamps used in these signals are 110-volt 25-watt for the white lights and 110-volt 40-watt for the red.

The subsidiary signals associated with the main signals have no red light. The proceed aspect is in the form of two white lights at 45 deg. and if a calling on indication is required, an illuminated C is displayed. Where a C and S indication is required, this is provided by a stencil indicator below the subsidiary signal. Junction direction indicators are provided on main signals where an indication of divergence from the straight route is required. These have five lights in a row, and when illuminated present a bar of white light, giving high speed trains a clear indication of the route. The radial position of the junction indicator gives the direction of the route. Should three or more lamps fail in the junction indicator the associated signal will remain at red.

Track Circuits

Reactance fed alternating current track circuits are used throughout and, to provide a return for traction currents, single rail circuits are used in the vicinity of the signalbox. On lengths of straight track double rail impedance bond track circuits are used, thus providing two rails for the traction return. The feed sets consist of a 110 to 112 volt transformer with adjustable reactance and the relays are of the double element type with a 110-volt local coil and a 1.2 to 2 volt control coil.

Operation of point mechanisms is carried out by compressed air supplied by 1 in. diameter alkathene air mains from the power house. The route of the air main is in the form of two loops laid in concrete ducts, one east and the other west of the signalbox. Point machines are supplied from the air main by ½ in. diameter steel pipes. The electro-pneumatic point layout comprises an economic point movement driven by a pneumatic points cylinder motor, 5 in. diameter by 8 in. stroke, controlled by a 24-volt cut-off valve. This electrically operated valve cuts off the air supply to the cylinder as soon as operation is complete. Continuous electrical detection of the position of each switch blade, the facing point lock, and cut-off valve is provided. The correct detection is proved in all signals relating to the points in addition to the indications provided on the control panel.

Telecommunications

All the main signals are fitted with selective telephones which when operated are connected to the signalbox. An illuminated indication automatically informs the signalman from which signal the call is coming. A keyboard situated on the console facia panel enables the signalman to switch to any of the various circuits brought into the signalbox. An illuminated stencil above the appropriate key shows the way stations on the particular circuit and the code required to communicate with any one of them. Codes are transmitted to the selected circuit by means of a push button and communication is effected by use of a telephone handset. Two of these handsets are provided, one connected if any of the circuit keys are up, the other with any one depressed, thus enabling both handsets to be in use at one time. On the main lines, the pole routes have been replaced by telecommunication cable westwards as far as St. James Bridge signalbox and eastwards to Boldon Colliery. On the branch lines the telecommunications cabling has been completed between Pelaw and Hebburn West and between Pelaw and Wardley.

The scheme was initiated, planned and brought to completion under the direction of the signal engineer, North Eastern Region. The signalling contractor for the scheme was Westinghouse Brake and Signal Co., Limited, which carried out the major portion of the installation work. Work at the adjacent signalboxes was carried out by the signal engineer's own staff. The civil engineering and construction work was carried out under the direction of the chief civil engineer, North Eastern Region.

The registered office of the Pullman Car Co., Limited, is now 167 Victoria Street, London, S.W.1 (Victoria 4102).

An up-to-date catalogue of service tools for Leyland products is now available from Leyland Motors, Limited, Service Department, Chorley, Lancs. Priced at 12s. 6d., it incorporates illustrations and descriptions of more than 170 specially designed tools.

Two new mild-steel arc-welding electrodes introduced by Lincoln Electric Co., Limited, Welwyn Garden City, are the NuFive, a smooth-flowing cellulose type designed for the welding of mild steel in all positions using a.c. or d.c. and NuSeven, an electrode of the iron powder-rutile type for general application to the welding of mild steel in all positions.

CONSERVANCY BOARD FOR CANALS

Plan by Conservative Group

THE views of a Conservative Parliamentary sub-committee on inland waterways and their future, as expressed to the Stedeford group, have been published. This sub-committee of the Conservative Parliamentary transport committee says that it has been evident for some time that remedial action is needed to prevent the continued deterioration of our heritage of inland waterways. In February, 1956, the Government set up the Bowes Committee to consider and make proposals for the future of the national inland waterways system. That committee presented its report in July, 1958. Its main recommendations, which were unanimous, have not yet been put into effect. On the question of the future ownership of waterways, the Bowes Committee was equally divided. In the meantime, the Government has announced that the British Transport Commission, the body at present responsible for approximately two-thirds of the waterways, is to be reorganised. This is, therefore, deemed an appropriate moment to put forward proposals for establishing inland waterways on a sound and permanent footing.

"We are impressed," says the sub-committee, "by the fact that inland waterways, originally intended as arteries of commercial traffic, are being increasingly used for other purposes, of which the sale of water and pleasure-boating are the most important." There has also been an increase in angling. Whereas commercial traffic on the waterways is still on the decline owing to the uncertainty which surrounds their future, pleasure boating is a rapidly growing industry. There is, therefore, no longer any good reason why canals should be administratively linked to the railways. On the contrary, both the Bowes alternative report and recent experience strongly suggest that if canals are to have a prosperous future they should be taken out of the hands of the British Transport Commission and put into those of a separate body.

Transfer of All B.T.C. Waterways

A suitable name for such a body would be the National Waterways Conservancy (a name suggested by the Inland Waterways Association). The Conservancy would be a commercial undertaking responsible for the maintenance and development of waterways to be used by others, and, therefore, not in itself a transport enterprise. The Conservancy would not take over the whole of the British Waterways undertaking, except the carrying craft, including all riparian rights now vested in the British Transport Commission. With regard to waterways not owned by the Commission, there is no reason to dissent from the recommendations made in paragraph 242 of the Bowes Report. (Scottish inland waterways, as recommended in paragraph 211 of the Bowes Report, would become the responsibility of the Secretary of State for Scotland.) It is suggested that the headquarters of the National Waterways Conservancy be in the Midlands, where it would be near the heart of the canal system and where overhead expenses would be lower than in London.

The National Waterways Conservancy (N.W.C.) would consist at the outset of about 12 members. These should be nominated by the Minister who was made responsible for the Conservancy. This could be the Minister of Transport; on the other hand it may be felt that another Minister, e.g. the Minister of Housing and Local Government, who is already responsible for the Thames Conservancy, water supply, national parks and the National Trust, might be more suitable. It is envisaged that the Minister concerned would appoint conservators from a list of names which would include names submitted by organisations directly concerned with canals such as carriers, pleasure-craft operators, water undertakers, drainage authorities, etc. It would be appropriate for one conservator to be nominated by the Minister of Works in view of the great importance of the canals and their buildings as historical monuments.

Management

The N.W.C. should have a part-time chairman who should be an outstanding administrator, of proved commercial or industrial experience, and a general manager who should be one of the conservators and would be paid an appropriate salary. The general manager would be responsible for regional and other staff, who would be recruited mainly from the existing staff of the Waterways Division of B.T.C. If it should prove desirable for the N.W.C. to be given advice on local problems, regional boards, consisting of people with special local knowledge and interests, might be set up.

As the owner of class A, B and C canals, the Conservancy would enter into agreements for the use of those canals by various bodies and/or individuals interested in them. There is frequently strong local sentiment in favour of local waterways. This has led to the formation of such bodies as the Lower Avon Navigation Trust, a voluntary quasi-charitable body which maintains and improves a local navigation. This type of voluntary effort might well be extended, says the committee. This could be done by the N.W.C. leasing where appropriate suitable parts of the system to keen voluntary or charitable bodies.

Revenue Sources

The N.W.C. would be obliged to maintain and develop inland waterways entrusted to it and to service that part of the B.T.C. debt which is represented by the B.T.C.-held waterways. It would have the duty of deriving the maximum revenue from the following sources:

(a) the licensing of commercial and pleasure craft;
(b) the sale of water;
(c) besides these major sources of revenue, a certain amount of revenue will be derived from warehousing, the granting of fishing licences where applicable, the reception of effluent, and the granting of sundry rights such as wayleaves for pipelines, cycling permits on towpaths and the leasing of canal cottages.

It is recognised that legislation may be needed to remedy long-standing anomalies in regard to the sale of water.

While current revenue from waterways may be enough to balance current maintenance costs, it will not suffice to make up for more than a century's backlog of neglect. The Bowes Committee estimated that the B and some C canals need capital expenditure from Exchequer of some £3½ million for reinstatement. This outlay is essential if the canals are to be kept open. In considering the alternative policy of closing the waterways in order to avoid a subsidy, it must be borne in mind that the interest on the money required for closure would exceed the annual cost of maintenance. Closure is not, therefore, an economic policy. But the recent growth of pleasure-boating in this country and its enormous popularity in the United States—where some seven million pleasure-boats are in use and some 35 million people are reported to have taken part in pleasure-boating in one year (1957)—provide evidence that, given the right policy, a substantial increase of revenue from this source is to be expected. For this and other reasons already mentioned it should be possible for the waterways in due course to pay their way.

The authors of the memorandum agree with the recommendations of the Bowes Committee that the use by craft of inland waterways should be through a system of licences not tolls. Such a change should yield valuable additional revenue. It is reiterated that the N.W.C. should be responsible for the waterways but should not engage in carrying operations. So long as the B.T.C. continues to operate canal craft, such craft should remain the B.T.C.'s responsibility.

If canal users are to have the necessary confidence and if the arrangements here suggested are to have any real prospect of success, an assurance must be given that the "prescribed navigable system of inland waterways" shall be maintained, as the Bowes Committee unanimously recommended, for at least 25 years.

"In conclusion," says the memorandum, "we should like to emphasise that the present state of affairs cannot continue. It must be either ended or mended. We have tried to indicate ways in which our heritage of inland waterways can be saved for future generations. We believe that the methods proposed would be to the advantage of the waterways-using public, which is an expanding section of the population, and would be at minimum expense to the taxpayer. We earnestly urge that this opportunity of rehabilitating our inland waterways, which may be the last, should not be wasted."

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LETTERS TO THE EDITOR

A Travelled Transport Consultant

The Editor is always glad to receive letters from readers on subjects germane to the transport industry, but these should be written as concisely as possible. The opinions expressed therein must not, however, be regarded as having editorial endorsement. Where correspondents desire to use a nom-de-plume it is essential that the Editor should be informed of the name and full address of the writer as indication of good faith.

SIR,—Your issue of October 15 awaited my return from an international railway meeting in Barcelona and, though some time has passed, it is still appropriate for me to record the pleasure with which I read your tribute to the work of Professor E. R. Hondelink.

As a postscript to your review of his considerable achievements in the transportation sphere, embracing many continents, I would like to place on record the great service he rendered to the Allied Forces during the period when his native land was under occupation. I recall the day when he was commended to the Railway Research Service by the military authorities in 1940: I remember so well the day when Sir Frederick Leith Ross asked me, at Berkeley Square House, whether he would be an appropriate person to head what later became known as E.C.I.T.O.

I have looked up his letter to me of June 29, 1945, on ending his connection with the Railway Research Service. He will not mind my quoting his words "I started work with you and your office for a period of years which was soon to develop into the happiest of my professional career." He went on to add a tribute to "the complete understanding and perfect teamwork of all the members of your staff"—a tribute to the then Railway Research Service.

Now I, in my turn, would render tribute to one who has accomplished so much, under other auspices, for the social and economic betterment of many nations, and your readers will rejoice with me that Professor Hondelink after the war became a British citizen, and thus Britain shares in the fine work he has accomplished.—Yours faithfully,

C. E. R. SHERRINGTON.

20 Queens Road,
Belmont, Surrey.

Search for Old Mercedes Lorries

SIR,—Several people have told me that vintage Mercedes-Benz trucks built somewhere between 1924 and 1930 are still running on British roads. I should like to obtain one of these vehicles but, so far, all efforts to trace them have failed. It occurs to me that some of your readers might be able to provide a clue as to their whereabouts, or put me in touch with an owner.

So as to save time, perhaps readers with a knowledge of their location would kindly get in touch with me at Mercedes-Benz (Great Britain), Limited, at the address below.—Yours faithfully,

FRANK TINSDALE,
Commercial Vehicle Sales Manager,
Mercedes-Benz (Great Britain), Limited.

Great West Road,
Brentford, Middlesex.

M1

SIR,—In your issue of November 12, you report that the A.A. says that there has been a gradual swing back by lorry drivers to the old A5 road. As a user of M1 since its inception I challenge this statement and would inquire, through your columns, the basis upon which the A.A. arrives at this conclusion.

Can the A.A. give figures for the lorry user of A5 before M1 was opened, the lorry user of M1, say by months to date, since M1 was opened and the lorry user of A5, say by months to date, since M1 was opened?—Yours faithfully,

JOHN BIRCH,
Managing Director,
Birch Brothers, Limited.

Royal Mail Yard,
Cathcart Street, N.W.5.

Preservation of Sheffield Tram

SIR,—Sheffield's last tram, Roberts car No. 510, has been purchased for preservation. This car represents the final development of the single-truck double-deck tramcar in this country. No. 510 was built by Charles Roberts and Co., Limited, as recently as 1951. It was repainted and decorated by the corporation to commemorate 87 years of tramway operation in Sheffield.

This car has been transferred to the museum site at Crich, Derbyshire, and funds are urgently required to meet accommodation expenses. Donations, please, to the "Roberts Car Fund,".41 Greenhill Avenue, Sheffield, 8.—Yours faithfully,

R. J. S. WISEMAN.

41 Greenhill Avenue,
Sheffield, 8.

MODERN AIRWAYS and COMMERCIAL AVIATION SECTION

FUTURE OF INDEPENDENT AIR TRANSPORT

Aspirations of B.I.A.T.A.

PROPOSING the principal toast at the annual dinner of the British Independent Air Transport Association in London on November 9, Mr. C. J. Stevens, the retiring president, stressed many of the points made in the annual report of the Association and in his foreword thereto. Much depended upon the results of the new Civil Aviation (Licensing) Act but that included a number of principles for which B.I.A.T.A. had campaigned and it felt that the outlook was hopeful. One matter which was causing considerable worry was the increase in airport charges which had been announced for April 1 next.

It was appreciated that the Minister of Aviation was not anxious to incur heavy losses on running the country's airports, but the incidence of these large increases would make the situation of the independent operators very difficult. They were very pleased to have the Minister with them as their guest and he would take the opportunity to suggest to him that one of the causes of the uneconomic operation of airports was the spasmodic nature of the traffic. If operators were encouraged by lower charges to use the airports during the off-peak hours this cause could be eliminated.

SCHEDULED SERVICES OF BRITISH INDEPENDENT AIRLINES

	1954-55	1955-56	Per-centage change	1956-57	Per-centage change	1957-58	Per-centage change	1958-59	Per-centage change	1959-60	Per-centage change
Capacity ton-miles	18,317,000	37,437,000	+ 104	32,385,000	— 12	39,800,000	+ 24	45,469,000	+ 12	51,811,000	+ 14
Load ton-miles	10,899,000	21,005,000	+ 93	20,251,000	— 3	23,972,000	+ 20	28,245,000	+ 17	34,874,000	+ 24
Overall Load Factor	59.5%	56.1%		62.5%		60.2%		62.1%		67.3%	
Passengers carried	337,228	506,331	+ 50	637,413	+ 27	755,617	+ 21	769,878	+ ½	950,029	+ 24
Passenger-miles	86,038,000	123,321,000	+ 43	149,456,000	+ 23	173,013,000	+ 18	188,955,000	+ 7	218,700,000	+ 16
Freight (short tons)	49,657	81,251	+ 63	67,760	— 17	78,081	+ 15	104,059	+ 33	156,846	+ 51
Freight ton-miles	2,930,000	9,610,000	+ 228	6,567,000	— 31	7,958,000	+ 21	11,033,000	+ 38	15,124,000	+ 37
Mail (short tons)	47	41	— 12	52	+ 41	49	— 8	31	— 36	7	— 76
Mail ton-miles	44,000	43,000	— 3	40,000	—	34,000	— 16	34,000	+ 2	17,000	— 49
Aircraft miles	6,542,000	10,258,000	+ 57	11,020,000	+ 9	12,173,000	+ 12	11,747,000	— 6	12,130,000	+ 4
Inclusive Tours (Not included in the above)											
Capacity ton-miles	1,732,000	3,103,000	+ 83	6,705,000	+116	9,934,000	+ 57	13,627,000	+ 37	11,325,000	— 16
Passengers car-carried	22,580	45,995	+108	96,605	+110	137,416	+ 49	180,446	+ 31	166,671	— 7
Passenger-miles	14,182,000	27,868,000	+100	57,472,000	+106	91,324,000	+ 68	122,806,000	+ 34	110,042,000	— 10

Airport Charges

When he replied to the toast the Minister of Aviation, Mr. Peter Thorneycroft, said that, while he was a relative newcomer to the Ministry, he was already well aware of the great possibilities that lay before air transport and he hoped that under the new licensing system everyone would get the opportunity they deserved. He shared the satisfaction of Mr. Stevens that Lord Terrington, who had done such excellent work as chairman of the Air Transport Advisory Council, should have accepted appointment as chairman of the Air Transport Licensing Board. The Minister said he had been very interested by the president's suggestion regarding airport charges. He would certainly look into the possibility, but he must make it clear that he had no intention at all of allowing airports to continue losing money on the present scale. He wished the independent operators and the airways corporations well.

The annual meeting of B.I.A.T.A. had been held earlier in the evening when Mr. Harold Bamberg was chosen as vice-president and president-elect. The president for the current year is Mr. L. C. Hunting. The annual report was approved and we set out in the accompanying tables some figures therefrom and below an abstract from Mr. Stevens' foreword.

New Act Welcomed

He said that the year ended March 31, 1960, once again produced mixed results. This had been a feature of the reports for some years, but there had, however, been a more general improvement in traffic from the poor results which were obtained in the previous year when air transport progress throughout the world did not live up to expectations. Traffic on scheduled services increased to varying degrees (with the exception of inclusive tours) but the improvement in some cases did no more than make good the previous losses. In other cases, however, there was some genuine progress which must obviously be regarded as satisfactory. This upward trend was again being continued during the current year. On charter and contract operations, however, the results were more variable and not so satisfactory.

The Association welcomed the establishment of a Ministry of Aviation which clearly recognised the importance of aviation affairs in the life and economy of the nation. It also welcomed the basic principles underlying the new Civil Aviation (Licensing) Act which had now come into being. The effect it would have in the future could not at this stage be forecast with any degree of accuracy, but, at least, the Act established quite clearly several principles for which the Association has argued for many years.

The Act recognised the legal right of all qualified British operators to participate in the development of scheduled air services and removed the statutory monopoly of such services granted to the airways corporations in 1946. The independent airlines had, of course, operated scheduled air services for many years, but this had been against the background of a legislative monopoly. In future, therefore, the affairs of the industry would be able to be dealt with more on their merits, but how far, in practice, the existing monopoly circumstances would change remained to be determined.

Competency to Operate

A further important feature of the Act was the requirement that, in future, all operators will have to obtain an air operator's certificate which would certify the operator's competency to operate aircraft. The Association had pressed for the introduction of a certificate of this kind and it trusted that vigorous application of the new requirements would remove any doubts which might unfortunately exist about the safety standards of British operators. Its general policy had for many years been that an independent licensing authority should be established with executive powers and wide terms of reference. Such an authority should, in the Association's view, be removed as far as possible from the political sphere and be able to deal with the problems of air transport development on their merits and with the over-riding consideration of the maximum, efficient and economical expansion of British air transport as a whole.

In the new Air Transport Licensing Board many of these principles were embodied. The Association would like to have seen more widespread powers and authority granted to the Board, but it recognised, however, that some links with the Government must be maintained. It hoped that the Board would be able to exercise its powers as independently as possible. The new legislation provided a reasonable basis for the future conduct of the affairs of the industry. Many opinions had been expressed on the effects the implementation of the new arrangements would have on the corporations, the independents and the industry. It was obviously not possible at this stage to make an accurate forecast in this respect, but it was clear that there would not be any immediate sweeping changes in any direction, and such changes as did take place would be of a gradual, but possibly continuous nature.

The Association hoped, however, that the ultimate outcome would be that the independent airlines would be allowed to develop those sections of the industry which they had created; that they should be encouraged to develop new forms of service; that they should be protected and not be penalised; that success should be promoted and not frustrated and that security of tenure of rights be assured. It had said on many occasions that the main problem had been how to regulate the industry so that both the airways corporations and the independents form complementary and expanding organisations working together to create the strongest possible British civil air transport effort. The future answers to these questions therefore now lay in the hands of the Air Transport Licensing Board and Mr. Stevens assured the Board of the Association's fullest support and co-operation in the undoubtedly difficult tasks which it was about to undertake.

CHARTER AND CONTRACT OPERATIONS BY B.I.A.T.A. MEMBERS

	1954-55	1955-56	Per-centage change	1956-57	Per-centage change	1957-58	Per-centage change	1958-59	Per-centage change	1959-60	Per-centage change
Capacity ton-miles available	100,275,000	117,922,000	+ 17	111,656,000	— 5	111,448,000	—	112,123,000	+ 1	124,689,000	+ 11
Load ton-miles	65,510,000	89,132,000	+ 35	89,024,000	—	96,150,000	+ 8	103,545,000	+ 7	104,872,000	+ 1
Passengers carried: Civil	66,043	258,713	+ 291	322,538	+ 24	307,692	— 4	331,717	+ 8	173,927	— 48
Military	214,594	204,700	— 4	157,035	— 22	137,821	— 12	142,085	+ 3	119,584	— 16
TOTAL	280,637	463,413	+ 65	479,573	+ 4	445,513	— 7	473,802	+ 6	293,511	— 38
Passenger-miles: Civil	90,509,000	126,690,000	+ 39	144,044,000	+ 13	102,274,000	— 30	130,061,000	+ 27	86,683,000	— 33
Military	387,546,000	522,903,000	+ 34	516,302,000	—	402,604,000	— 22	419,557,000	+ 4	419,346,000	—
TOTAL	478,055,000	649,593,000	+ 35	660,346,000	+ 2	504,878,000	— 23	549,618,000	+ 9	506,029,000	— 8
Freight (short tons)	35,095	44,194	+ 26	54,895	+ 24	30,030	— 45	17,165	— 43	16,987	—
Freight ton-miles	19,951,000	29,981,000	+ 50	29,980,000	—	48,522,000	+ 65	51,201,000	+ 8	56,836,000	+ 11
Aircraft miles	19,344,000	20,138,000	+ 4	19,183,000	— 5	22,225,900	+ 16	19,385,800	— 14	22,281,000	+ 15

Traffic results for the years 1954-1959 are as at June 30 each year and as at March 31 for the year 1959-60

LIGHTWEIGHT RAILCAR

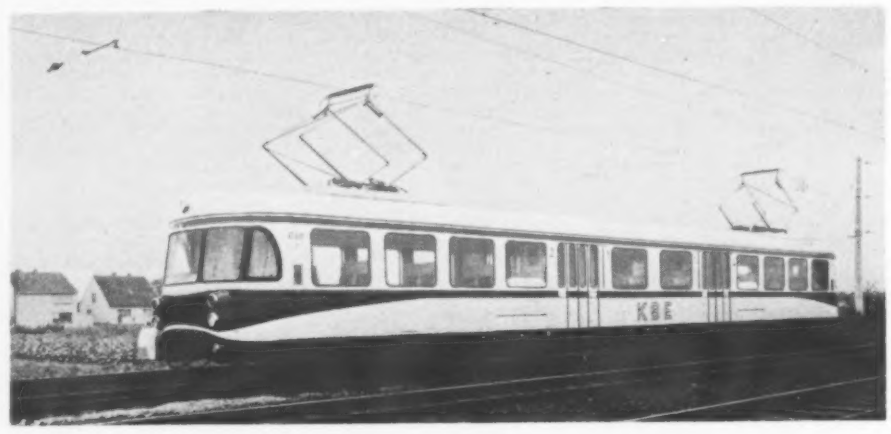
Köln–Bonner Eisenbahnen Experiment

THE Köln—Bonner Eisenbahnen in the Cologne—Bonn area, one of the largest and most important privately-owned railways in the German Federal Republic, has recently put in service a remarkable lightweight railcar which has been under development for nearly three years. This railcar captivated the interest of numerous experts at the 1960 International Exhibition of Lightweight Railcars in Strasbourg.

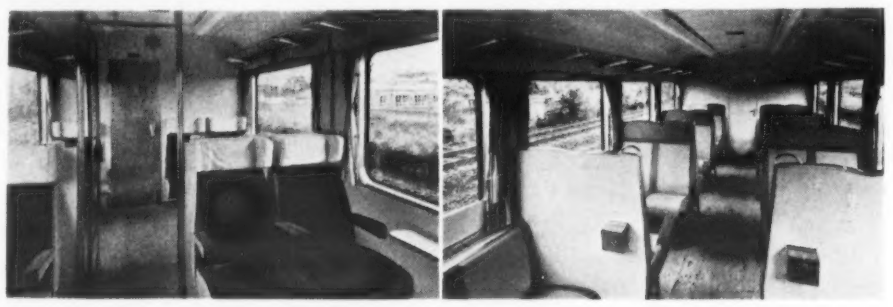
The new car has been constructed by a consortium of several industrial and electrical undertakings. When designing this railcar it was the intention to create a rapid transit vehicle which would achieve a maximum of economy and, likewise, of comfort for the passenger. The tare weight had to be kept down to a minimum, and, therefore, the body is of welded aluminium-alloy. The result was a reduction of the empty weight to 30 tons only and as a corollary the new railcar is able to attain a maximum speed of 75 m.p.h.

Each of the four axles is driven; the four direct current motors are each of 75 kW (102 h.p.). The bogies are of all-steel construction and have a 7 ft. 3 in. wheelbase. The weight of one bogie, without electric equipment is 3·57 tons. During rush hours it is expected that the railcar will have a capacity of 150 passengers.

The exterior of the car is not painted and it is expected to remain free from corrosion as with the London Underground stock. An automatically controlled ventilation gives always—even in summer—an agreeable temperature, whilst in winter the same equipment is used for heating the incoming air. The car was exhibited at the large show of modern transit vehicles "Schiene und Strasse" in Essen: after trials it is expected that nine more will be built.



The new lightweight railcar for the Köln—Bonner Eisenbahnen



Interior views of the new car: left, first class; right, second class

BUSES FOR TROLLEYBUSES

On Uxbridge Road Routes

L.U.T. HISTORY RECALLED

EARLIER this month (November 9) the London Transport buses-for-trolleybuses programme reached a new landmark when it plunged deeply into former London United Tramways territory in West London. As already recorded, trolleybus route 607 has been replaced by bus route 207, Uxbridge—Shepherds Bush Green and (on weekdays) by route 207A, Hayes Station—Chelsea (Stanley Arms) and route 655 by bus 255, Acton Vale (Bromyard Avenue)—Hanwell—Brentford—Hammersmith—Clapham Junction. Full details appeared in the November 5 issue. Routes 207A and 255 work in overlapping sections at certain periods, with no through buses at those hours. The total length of road from which trolleybuses have disappeared is 18.9 miles. Ninety-five Routemaster buses replace a like number of trolleybuses at Hanwell depot. The garage when modified will have accommodation for 150 buses.

Class T L.U.T. tramcar outside Hanwell depot; right, Ealing Broadway about 1931—everything waits while passengers alight from a 64-seat (plus 20 standees) Feltham car

The history of trolleybus route 655 can be traced back to 1906, when the London United Tramways, Limited, opened a short electric tramway between Hanwell and Brentford along Boston Road, connecting the system's two trunk routes. Route 607 is much older. In 1873, the Southall, Ealing and Shepherds Bush Tram-Railway Company obtained authority for a tramway from Shepherds Bush to a point 25 yards west of what was described as "Priory Road," Acton. This appears to have been a mistake for Acton Lane. This short route opened, with horse traction, in or about 1876 and was the nucleus of what later became the L.U.T. system. It was extended to a new Acton depot in 1895.

Acton depot in 1937, during its brief period of use by trolleybuses

L.U.T. Formed

After six years, the Southall, Ealing and Shepherds Bush company was acquired, without having reached Ealing — let alone Southall—by the West Metropolitan Tramways Co., Limited, a new company which set about expanding the system. Financial difficulties caused the West Metropolitan to hand over its assets in 1894 to another new company—London United Tramways, Limited—with registered offices at Clare Street House, Bristol. The L.U.T. immediately prepared plans to electrify and extend the system, which by the beginning of 1901 was operating about 60 cars. Their proposals met with a mixed and noisy reception; while some residents welcomed the prospect of speedier transport, others looked upon all tramways—whether horse or electric—as unnecessary evils. The dividing line between the rival factions was so sharply defined that the issue featured freely in local politics. However, the necessary Parliamentary sanction was duly received and the work was put in hand, the plant and wiring being installed by the B.T.H. company.

Although the plant and cars were ready for service in 1900, they stood idle for six months because the Kew Observatory authorities thought that the use of the usual earth-return via the track would interfere with the observatory instruments. The electric service began to run, a few days after the difficulties had at last been resolved by the tramway company agreeing to give assistance with the cost of removing the observatory to Teddington, on April 4, 1901, the Shepherds Bush—Acton route being one of three which formed London's first electric tramway system.

The service started with 50 open-top cars, increased within a few days to 100. These first electric trams, with their lower-deck seats covered in tapestry, their curtained windows and their floor mats, were by far the most luxurious public transport vehicles in London. The original livery was red with white upperworks and each car bore in large letters along its lower side panels the legend "London United Electric Tramways." (The only part of the former horse-tramway not concerned in the changeover was the entirely disconnected line from the Surrey side of Kew Bridge to Richmond, which remained horse-drawn until its abandonment in 1912.)

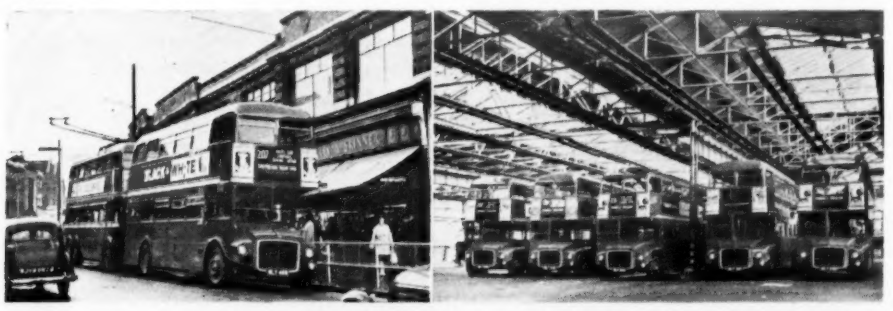
On July 10, 1901, the extension of the Acton line to Southall was inaugurated, and this was made the occasion of the formal opening of London's first electric tramway, although parts of the system had, of course, been in use for over three months. Trams were specially decorated with flowers and bunting and a party of distinguished guests, headed by Mr. A. J. (later Earl) Balfour, was taken on a belated "inaugural run" from Shepherds Bush to Southall and later entertained at a banquet. By now another 50 cars had been added to the original fleet; they were slightly different from the earlier vehicles. In their all-cream livery they were very smart, and it was probably for this reason that 10 of these particular cars were used for the inaugural ceremony.

During the next few years many L.U.T. extensions were opened, mainly into districts that were essentially rural, with consequent enlargement of the fleet. A further 150 trams were added to the fleet at this time, doubling its size, and these cars were finished in blue with white upperworks. For some years, cars in the respective colours—red, cream or blue—operated on different routes, thus continuing the colour scheme of the original horse tram routes, the Southall route being worked by the cream cars. In 1904 came the extension from Southall to Uxbridge, largely on single-track tramway and two years later a link between the two main routes was opened from Brentford to Hanwell, via Boston Road.

Thus the main pattern of the two routes was established and, until their conversion to trolleybuses some 30 years later, little alteration was made. Route numbers were introduced, the Shepherds Bush—Uxbridge service becoming 7 and the Hanwell—Brentford route 55. At various periods route 55 was extended in peak hours from Hanwell to Ealing or Acton and for a time the Hammersmith—Acton service, route 89, was extended to Southall or Uxbridge at weekends.

One-Man P.A.Y.E. Cars

In the 1920s the Hanwell—Brentford service was worked by some single-deck, one-man-operated, "pay-as-you-enter" trams, with a front entrance and rear exit. Increased traffic in 1928 led to the reinstatement of double-deck cars on the route. In 1931, the L.U.T. introduced the rear entrance, front exit Feltham tramcars on route 7. The original intention was to have these Felthams running on reserved tracks on the western portion of the Uxbridge route, but the plan never materialised and single-track sections remained until the end, although at Hillingdon the embryo of a central reservation can still be seen.



A Routemaster bus and a lingering trolleybus en route from North Finchley to Hammersmith share the same stop in Acton High Street; right, Hanwell garage before dismantling of the overhead line troughs commences

The first of the two routes to be converted to trolleybus operation was route 7, which was changed over on November 15, 1936, becoming trolleybus route 607. Route 55 followed a month later on December 13, 1936. Unlike route 607, which operated between the same termini as the former tram route, the 655 service was extended at both ends at the outset. At the southern end there was a daily extension from Brentford to Hammersmith and at the northern end the service was projected on weekdays to Craven Park via Horn Lane. This latter extension lasted only until May, 1937, when the service was cut back to Acton Depot. Four months later, in September, 1937, when tram routes 26, 28 and 30 were converted to trolleybuses, route 655 was extended to Clapham Junction. The final extension came in July, 1946, when the service was extended in peak hours to Bromyard Avenue, Acton Vale, making the route, at 14.8 miles, London Transport's longest trolleybus service.

When the L.U.T. took over the West Metropolitan in 1894, it acquired several horse tram depots, including one at Shepherds Bush. This was soon supplemented by a new depot built at Acton the following year. With electrification, in 1901, the

(*Continued on page* 14)

NEWS FROM ALL QUARTERS

Leeds Tram Depot

Swinegate tram depot of Leeds City Transport, now disused, has been leased as a car park and exhibition hall.

L.M.R. Fog Services

This winter the London Midland Region is to give advance notice by posters at London termini and some suburban stations of which trains will be cancelled if suburban fog services have to be introduced. Hitherto information has not been conveyed in a specific form.

Barnstaple Bridge Reconstruction

The 12th-century 16-arch bridge spanning the river Taw at Barnstaple, known as the Long Bridge, is to be taken over by the Ministry of Transport and widened at a cost of £207,000. It is one of the few trunk road bridges left in the country still belonging to a local body, and is administered by a local charity known as the Bridge Trust.

More Automatic Warnings for Southern Trains

The second stretch of automatic warning system of train control on the Southern Region comes into use on November 18. It is being installed along 33 route-miles of track between Salisbury and Worting Junction—an extension of the system fitted between Exeter and Salisbury in March. A.W.S. is being given extensive field trials on the electrified Kent Coast lines.

L.C.C. Roads Committee

Following the decision of the Minister of Transport to authorise London County Council to undertake a programme of London road improvements on an increased scale of £10 million a year, a proposal to set up a new committee of the Council to deal solely with the programme of road improvements is being considered. It is felt that the magnitude and urgency of this task (hitherto part of the duty of the Town Planning Committee) require the undivided attention of a committee with no other preoccupations to ensure the greatest possible progress.

Study of Railroad Working Rules

Five United States railwaymen's unions have agreed to refer the complex "work" rules issue to a special presidential commission whose 15 members, five nominated by the unions, five by railroad management and five others selected by the U.S. President, are expecteed to begin their study by January next year. Its recommendations will not be binding on either party. The unions, who feel that the issues involved are too difficult to be resolved under the regular procedures of the Railway Labour Act, have described the agreement as a major step toward the re-establishment of sound labour relations in the railroad industry. Among the questions which the commission will have to consider are management demands for drastic changes in work rules—including the abolition of firemen on freight trains—and union demands for night work differentials, improved overtime rules, stabilisation of employment and protection of railwaymen against loss of jobs or pay in mergers.

C.I.E. Decision

The decision of C.I.E. to close the Waterford—Tramore railway line and to substitute a bus service from January next was discussed at a meeting of local authorities. It decided to seek legal advice about the position and to send a deputation to C.I.E. to discuss details of the alternative road service.

Swaziland Iron Ore Railway

Negotiations are being conducted in London by Mr. W. Marshall Clark, of the Anglo-American Corporation, with the British Government and the Colonial Development Corporation on a proposed rail link between Portuguese East Africa and the iron ore deposits in the Bomvu mountains in Swaziland as part of a proposed opencast iron ore project there. Anglo-American has announced agreement in principle on the supply of up to 12,000,000 tons of iron ore, starting in 1964, to the Yawata and Fuji iron and steel companies in Japan, but the sealing of the contract depends on whether the rail link can be financed to the satisfaction of all parties, and whether it will be able to carry the ore at economic rates. (Mr. Marshall Clark was formerly general manager of South African Railways.)

Three-Level Channel Bridge Proposed

Sir Owen Williams, the London architect and civil engineer who designed the M1, has declared himself as favouring a Channel bridge in preference to a tunnel. He says that any new means of cross-Channel transport of vehicles should have comparable capacities. There seems little reason to allow for less ultimate traffic between London and the Continent than between London and Birmingham, for example. Construction would form a structural tube about 50 ft. square, the sides of which would be perforated for ventilation, with two carriageways, one above the other for ideal separation of opposing flows of traffic. The roof of the upper carriageway would be constructed for either two railway tracks and two service roads, or it could be a third carriageway operating in fine weather and peak traffic periods.

Midland Pullman to be Rescheduled

To meet the requirements of many travellers in the Manchester area, and to allow also for an extended service to the Midlands, the London Midland Region states that from January 2 next year the Midland Pullman diesel train will leave Manchester Central at 7.45 a.m. instead of at 8.50 a.m., as at present, and will arrive at St. Pancras an hour earlier at 11 a.m., giving business men from the north-west of England an opportunity of keeping pre-lunchtime appointments in London. This earlier arrival will also enable the service at midday to be extended from Leicester to include Loughborough and Nottingham, thus bringing this de-luxe service to two more important centres. The train will leave St. Pancras at 11.20 a.m., arriving Nottingham at 1.20 p.m., return at 3.45 p.m., arriving St. Pancras at 5.45 p.m., ready for the Manchester return trip at 6.10 p.m.

COMMERCIAL AVIATION

Abbotsinch as Airport

BELFAST—DUBLIN

THE Royal Naval air station at Abbotsinch is to be taken over by the Ministry of Aviation for development as the civil airport for the Clyde Valley, it was announced on Monday in the House of Commons. Making a statement in reply to questions, Mr. Peter Thorneycroft, Minister of Aviation, said that in considering what airport should be used to replace Renfrew in three years he had consulted the Secretary of State for Scotland, the First Lord of the Admiralty, a number of representatives of Scottish opinion, and the travelling public. Pressed to reduce the period of three years over which the transfer was to take place, the Minister said he would consider that, but a good deal of work had to be done and the First Lord was also concerned in the matter.

New Service Approved

The Minister of Aviation, after considering the recommendations of the Air Transport Advisory Council, has approved the operation of the following service:

An all-freight service between Leeds–Bradford and Belfast by B.K.S. Air Transport, Limited, until November 16, 1965.

K.L.M. Obtains Las Palmas Rights

As from November 5 K.L.M. (Royal Dutch Airlines) included Las Palmas in its route network. It is a call on the new Amsterdam—Zurich—Casablanca—Las Palmas—Conakry—Monrovia service which opened on that date and is flown once weekly with Lockheed Electras.

New T.W.A. All-Cargo Service

Trans World Airlines has inaugurated a new regular scheduled all-freight service across the Atlantic between London and New York. Begun on November 3, the cargo service is initially operated twice-weekly by L1049H Super Constellations, but the airline plans to step this up as soon as possible. Aircraft capacity is 27,000 lb.

B.K.S. Belfast—Dublin Service

From November 21 B.K.S. Air Transport will commence carrying local Belfast—Dublin traffic on its thrice-weekly Newcastle—Belfast—Dublin route which it operates with Airspeed Ambassadors. In winter it omits the Edinburgh call on its Newcastle—Belfast service and combines it with the Newcastle—Dublin service which is operated direct in summer.

K.L.M. 1960 Traffic

For the second time in its 40-year history, K.L.M. Royal Dutch Airlines has carried a million passengers in one year. The first was 1959, when the millionth passenger travelled on December 3. This year was the second and the million mark was reached in nine months. The average distance flown by K.L.M. passengers this year is 1,335 miles. During the first nine months of 1960, the Dutch operator also carried 46,000 kg. of freight.

Panam Pacific Economy Service

Pan American Airways will inaugurate trans-pacific economy service on December 1, at fares approximately 14 per cent below present tourist-class levels. The new jet fare from West Coast cities to Tokyo will be £155 7s. compared to the present tourist-class fare of £181 9s., with proportionate reductions to other Pacific points. The company also announced that it will continue to press for a complete revision of transatlantic cargo rates at the special I.A.T.A. meeting in Paris on January 23.

T.C.A.-Malev Agreement

Trans-Canada Air Lines has entered into a reciprocal agency agreement with Malev, the Hungarian national air carrier. Under terms of the agreement, all passengers originating in Hungary and destined for Canadian cities will be booked by Malev on T.C.A.'s domestic services. Some passengers will also be booked on T.C.A.'s transatlantic flights to Canada. In turn, T.C.A. will book passengers originating in Canada and intending to travel by air in Hungary on Malev flights. Hungary is the fourth eastern European country to make such an agreement with T.C.A., the others being Poland, Czechoslovakia and Yugoslavia.

Record United Turnover

Highest earnings for any quarter in the history of United Air Lines were recorded during the third quarter of this year, when net earnings of $7,076,303 were augmented by gain of $931,142 on aircraft sales to give a combined total of $8,007,445. This compares with total earnings of $6,965,812 in the third quarter of 1959. Mr. W. A. Patterson, the company's president, attributed the record results to rapid expansion of jet services, high load factors on jet air liners and full recovery of the company's competitive position in the industry. Fare increases effective in July also added to revenue. Overwhelming approval was given on October 14 by stockholders of both companies to the proposed merger of United and Capital Airlines.

British Airports in August

Air transport movements at United Kingdom aerodromes in August, 1960, numbered 53,729, an increase of 7 per cent compared with August, 1959; the number of passengers handled increased by 22 per cent to 1,583,104 and freight picked up and set down amounted to 40,713.6 short tons, an increase of 14 per cent. Airports in the London area as a whole showed an increase of 4 per cent in air transport movements and an increase of 24 per cent in the number of passengers handled. At London Airport there were 15,202 air transport movements, an increase of 13 per cent compared with August, 1959, and 682,476 passengers were handled, an increase of 32 per cent. The majority of airports showed increases in passenger traffic over August, 1959, and amongst these were Southend (Rochford) by 56 per cent to 88,740, Edinburgh (Turnhouse) by 40 per cent to 29,561, Belfast (Nutts Corner) by 36 per cent to 60,651, Birmingham (Elmdon) by 35 per cent to 49,131, Manchester (Ringway) by 25 per cent to 115,636, Liverpool (Speke) by 25 per cent to 31,789 and Gatwick by 22 per cent to 92,753. Other airports which showed large increases included Stansted, where 7,942 passengers were handled compared with 498 in August, 1959, and Bournemouth (Hurn) where passenger traffic increased from 6,919 in August, 1959, to 21,417 in August, 1960. Passenger traffic increased also at Bristol (Lulsgate Bottom) by 69 per cent to 11,341, Luton by 52 per cent to 1,223, Leeds-Bradford (Yeadon) by 50 per cent to 20,175, Newcastle (Woolsington) by 31 per cent to 22,679, Lympne by 29 per cent to 15,251, Benbecula by 28 per cent to 2,484 and Cardiff (Rhoose) by 27 per cent to 10,151.

SUCCESSFUL CRANE BUILDER

Mr. R. A. RIDDLES, C.B.E., M.I.Mech.E., M.I.Loco.E.

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Chairman of Stothert and Pitt, Limited, since January, 1959, Mr. Robert Arthur Riddles this week presented to the annual meeting a report of another successful year for this well-known Bath firm of crane manufacturers which has, as recorded in the columns of MODERN TRANSPORT, in recent years produced a number of new and effective designs. Mr. Riddles joined the London and North Western Railway as a premium apprentice at Crewe in 1909, served in the Royal Engineers in the 1914-18 war and subsequently held various technical appointments at Crewe and Derby before being appointed locomotive assistant to the chief mechanical engineer, L.M.S.R. (1933), principal assistant to the chief mechanical engineer (1935), mechanical and electrical engineer, Scotland (1937), and chief stores superintendent (1943). His services were loaned during the war to the Ministry of Supply to create a directorate, with himself at the head, for the provision of transportation equipment (D.T.E.) and, after Dunkirk in 1940, with responsibility for all Royal Engineer equipment (D.R.E.E.). The experimental bridging establishment at Christchurch which designed and produced the famous Bailey Bridge and many other items of field equipment came under the directorate; the Everall Bridge for railway purposes was also produced. Additionally, it provided inter alia, stationary power units, cranes of all kinds, pipelines, road-making machinery, and all-track tractors. The directorate was further instrumental in supplying piers and pierheads for the Mulberry Harbour. Mr. Riddles was also prominently concerned with the design and production of large numbers of standard British-built locomotives provided during the war primarily for service overseas, over 1,000 of the Austerity 2-8-0 and 2-10-0 types alone being built. In 1941 he was appointed Deputy Director-General, Royal Engineer Equipment, and in that year undertook a special mission to America to ensure that essential stores were supplied to Russia and Persia to enable maximum use of transport facilities. For these services he was awarded the C.B.E. in the New Year Honours of 1943 and in August of that year, at the request of his company, returned to the L.M.S. to become chief stores superintendent, a position he relinquished in May, 1946, on becoming a vice-president. In October, 1947, he was appointed a member of the Railway Executive responsible for mechanical and electrical engineering. In the course of his duties there he was responsible for the production of the B.R. standard steam locomotives and rolling stock. He retired therefrom on September 30, 1953. Thereafter he paid a long visit to Angola to study and report on the maintenance facilities of the Benguela Railway and this was not the end to his travels; since having joined the board of Stothert and Pitt he has visited India, Australia, New Zealand and America on that company's behalf. Mr. Riddles is a past president of the Junior Institution of Engineers, was president of the Institution of Locomotive Engineers, 1950-51, and in July, 1953, was awarded its gold medal for his outstanding contribution to the science of locomotive engineering.

IN PARLIAMENT

Stedeford Group Wound Up

BETTER G.V. LICENCE DISCS?

IT was revealed by MR. ERNEST MARPLES, in reply to a questioner, that the special advisory group on the B.T.C., under the chairmanship of Sir Ivan Stedeford, completed its work at the beginning of last month and has now been disbanded. MR. A. W. BENN asked for an assurance that, as the Stedeford group was reporting jointly to the Minister of Transport and the British Transport Commission, when the Minister published the White Paper it would include the comments of the Commission on the group's report, as well as the comments of the Government upon it. Mr. Marples: "We had better wait until the White Paper is published." Each of the Stedeford recommendations has been sent to the Minister and the B.T.C. simultaneously, he said.

L.T.E. Capital Allocation

The amount provisionally allocated to the L.T.E. within the limit on the B.T.C.'s capital investment for 1961 is £16 million, compared with £13 million for 1960, said MR. ERNEST MARPLES. In addition, some expenditure by British Railways will be for the benefit of public transport in London.

London Airport by Road

Questioned about the possibility that a rail link might still be built to London Airport, the Minister of Transport confined himself to remarking that at the moment efforts were being concentrated on the road approach—"virtually a motorway"—which would make the journey very speedy indeed.

Jack Committee Report Before Christmas

MR. W. J. OWEN asked the Minister of Transport when he expected to receive the report of the Committee in Inquiry on Rural Transport; and whether he would make a statement. MR. ERNEST MARPLES told him that Committee hopes to present its report before the end of the year.

Vehicle Noise Meters

It is hoped that the British Standards Institution will complete, within the next few months, specifications for methods of vehicle noise measurement and for noise measuring instruments. When both these specifications are available it should be possible for suitable meters to be produced. I shall then be in a position to propose new regulations. (MR. ERNEST MARPLES.)

Trolleybus Drivers and Accidents

DAME IRENE WARD asked the Minister of Transport whether he would introduce legislation to make it obligatory for trolleybus drivers, covered by section 6 of the Regulation of Railways Act, 1871, to report accidents to the police. Such an obligation would place a stricter requirement on trolleybus drivers, in relation to the police, than is placed on drivers of other road vehicles, said MR. ERNEST MARPLES. He was writing to explain the position.

Co-ordination Plea in Hyde Park Schemes

In the House of Lords, LORD MANCROFT said that Hyde Park on its Park Lane verge at present looked like a "dress rehearsal for the day of judgment." He urged the Government to bring forward the underground garage bill without delay. "I fear that just as the last geranium has been put in Hyde Park, along will come Costain, Holland, and Hannen and Cubitts, and Uncle McAlpine and all, and start digging the thing up." He approved of the Hyde Park garage "so long as people can use it at a reasonable cost." At present, Marble Arch and Hyde Park Cornerr were in a state of "well controlled chaos," with the road works in progress.

Dartford—Purfleet Tunnel Talks

MR. N. DODDS made a determined effort to persuade the Minister to modify his views about charging tolls in the new Dartford—Purfleet Tunnel. MR. ERNEST MARPLES said it remained the policy to charge tolls on certain very costly new bridge and tunnel projects where the present inconvenience to road users will be heavily outweighed by the value of the new facilities. The new Blackwall Tunnel (which will be toll-free) was an exceptional case. For motorways it had been decided that the first part of the network should be toll-free. No decision had been taken about later motorways and the question was being further studied. He refused to receive a deputation on a matter which had been settled in the Dartford Tunnel Act of 1957.

Better G.V. Licence Identity Discs?

Steps should be taken, said MRS. H. SLATER, to ensure that road haulage vehicles are correctly licensed for the work which they do. They should prominently display their licence numbers for the type of work for which they are licensed. Was the Minister aware that it was terribly difficult for a policeman or anyone else to check these people if one had to wait until the vehicle stopped before one could see the licence? [HON. MEMBERS: "Speech."] Would it not be better to have a requirement that some much bigger sign, marked A, B or C, should be placed on the vehicle so that anyone at a glance could see whether or not these men were avoiding taxation and the proper responsibilities that they had in case of accidents? MR. JOHN HAY, faced with this barrage, could only say that over 100 enforcement officers were employed and that there were 3,800 prosecutions last year for this sort of thing. They "kept a very close watch on it."

About-Face on Covent Garden

Details were given by the Minister of Agriculture, MR. A. SOAMES, of the latest proposals for dealing with the Covent Garden market problem in London. The new Bill on this subject looks towards the reconstruction as soon as possible of the market on its present site, despite the recommendations of the Runciman Committee. Moreover, although the Old Street—City Road site for bulk produce and empties will be reserved by the L.C.C. there is no obligation upon the new Covent Garden Market Authority to use it—it may look for an alternative site. Finsbury Borough Council is not happy at having this development in City Road. The main objective is to reduce the traffic congestion in Covent Garden,by having a proportion of the sales by sample only. The actual site of the new market will be designated by the L.C.C. as part of its plan to redevelop the whole area. This is bounded by Shaftesbury Avenue, High Holborn, Kingsway, Aldwych, Strand, William IV Street and Charing Cross Road. The new market authority will initially borrow £8 million from the Exchequer.

MORE DECCA RADARS

Additions to X-Band Series and New S-Band Set

As recorded editorially in our issue of November 12, Decca Radar, Limited, has announced the introduction of a new series of marine radar which increases its range to a total of twelve sets. This now consists of 11 3-cm. (X-band) radars and one 10-cm. (S-band) radar. Four new 3 cm. radars, complementary to the existing series of seven sets, are now available and bring the full Decca 3-cm. range to eleven radars, to be known as the D 11 series. At the same time, a new true motion 10-cm. radar is announced. Equipment operating on this wavelength has hitherto been manufactured only by American companies and the Decca equipment, the TM-S 2400, is the first British radar of its type. It provides a number of important technical and operational features, which are entirely new to 10-cm. marine radar. For the first time the standard of the radar picture and of the display facilities is comparable with the best of 3-cm. radars. The company claims that this series of twelve sets represents the most comprehensive and complete range provided by any manufacturer throughout the world.

New X-Band Radars

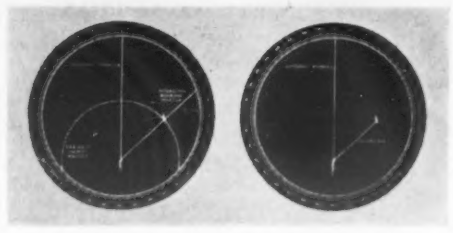
The four new 3-cm. radars all employ 75-kW transceivers and a high performance 10-ft. slotted waveguide aerial system. These four sets are the: D 535, relative motion with 9-in. display unit; D 838, relative motion with 12-in. display unit; TM 939, true motion with 12-in. display unit and TM 969, true motion with entirely new 16-in. display unit. The TM 969, with the new slotted waveguide aerial and 16-in. true motion display, is claimed to represent the most advanced 3-cm. marine radar yet available, possessing significant new features which make an important contribution towards increased safety at sea.

The interscan technique for measuring range and bearing is a feature of the 16-in. display console. It is a continuously visible electronic line which appears on the p.p.i. originating from own ship's position. From the variation in length and direction of this line range and bearing information can be obtained in the shortest possible time and with great accuracy on any number of targets and on any type of presentation, relative or true, stabilised or unstabilised. The ability to obtain these measurements rapidly and accurately is a factor of significance in increasing safety at sea, particularly in congested waters where continuous information of change of range and bearing must be maintained in respect of several ships simultaneously. Several recent collisions at sea, where vessels have first detected each other at ranges as great as 12 to 16 miles, have been attributed to confusion in maintaining a clear record of bearing change. The interscan method enables range and bearing to be taken more than twice as rapidly as by any previous method with consistently high accuracy.

Daylight Viewing

Other new features of the 16-in. display include a Deccavue polaroid daylight viewing hood permitting simultaneous viewing by two operators in normal direct lighting, built-in true motion, seven range scales extending from ½ to 60 nautical miles, variable differentiation giving control of picture sharpness to suit physical characteristics of the locality and the grouping of controls according to their function so that they come readily to hand when needed.

The new Decca 10-ft. slotted waveguide aerial contributes many important improvements to radar performance, including longer detection range on all targets, very low side lobe level, improved close range performance, low top weight and windage. Beam width of 0.75 deg. at half power points results in a sharply focused main beam. Excellent bearing discrimination is provided particularly against strong echoes at close range and the p.p.i. picture displayed is of exceptional quality. A substantial improvement in target to clutter ratio is achieved with this aerial



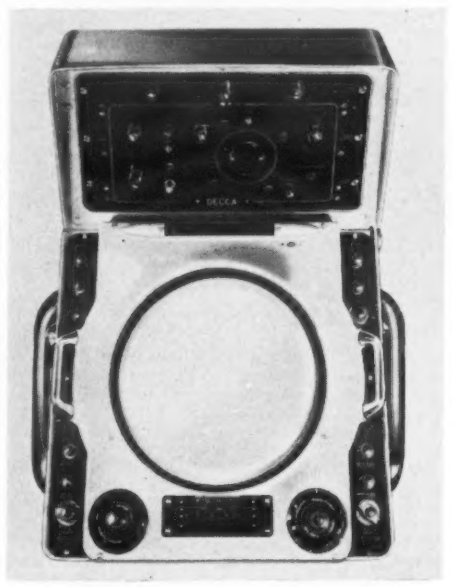
The interscan used on the new Decca 16-in. console as a continuously visible bearing marker in conjunction with a conventional variable range marker; right, measuring range and bearing simultaneously when the information for both may be used in the same window

which ensures better detection of small targets in the presence of precipitation and sea returns.

The TM-S 2400

The Decca TM-S 2400 10-cm. marine radar employs a 13-ft. slotted waveguide aerial, a 75-kW transceiver and the same 16-in. true motion display console as the TM 969 X-band equipment. The radar is designed for use either as a single installation or in conjunction with a 3-cm. radar from the D 11 series when the advantage of a choice of frequency is required in order to minimise the effects of interference and to enable the most suitable frequency to be employed under any given geographical or weather conditions.

Where one radar only is fitted it is generally accepted that for overall performance a 3-cm. radar is preferable. The inherent advantages of 10-cm. radar, however, are good performance in the detection of targets in heavy sea clutter, or



Controls of the new console are grouped according to function and degree of use

within and beyond areas of severe rain or snow. Among the features of the TM-S 2400 which have not previously been available with 10-cm. marine radar are an aerial rotation rate of 20 r.p.m. giving a good data rate essential for effective true motion display; integral true motion on the master display; range and bearing measurements by interscan; choice of two true motion and three relative motion presentations; peak power of 75 kW; range scales and markers to maximum range of 60 miles; the new Deccavue daylight viewing hood, and the provision of variable differentiation.

The south western regional office of A.E.C. (Sales), Limited, has been moved from Southampton to new temporary premises at Alma Garages (Bristol), Limited, Mitchell Lane, Victoria Street, Bristol, 1; telephone Bristol 27063. This address will be used until the regional office is moved into A.E C.'s own premises.

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FORTHCOMING EVENTS

Until November 19.—Public Works and Municipal Services Congress and Exhibition. Olympia, W.14.

November 21.—I.R.S.E. M. Le Sueur, "Work Study as Applied in a Railway Signal Department." Bristol Temple Meads Station. 6 p.m.

R.Ae.S. (Historical). Sir Thomas Sopwith, Inaugural Lecture. "My First Ten Years in Aviation." I.Mech.E., 1 Birdcage Walk, S.W.1. 6 p.m.

November 22.—Inst.T. (Leeds G. and S.). W. E. Waite, "The New Leeds City Station." Leeds City Transport, 1 Swinegate, Leeds, 1. 7 p.m.

I.Mech.E. (Lubrication). Discussion, "Bearing Corrosion." 1 Birdcage Walk, S.W.1. 6 p.m.

November 23.—E.R.S. J. E. Cull, "Evolution of Electric Rolling Stock." Engineering Centre, Stephenson Place, Birmingham, 2. 7.15 p.m.

I.R.T.E. (Northern). G. O. Gurney, "Glass Fibre Reinforced Plastics." Victoria and Station Hotel, Preston. 7.30 p.m.

P.R.D.G. Dr. J. Sharp Grant, "Hazards in the Railway Industry." Technical College, Peterborough. 6.45 p.m.

L.M.R.L.D.S. Debate with Railway Students Association, London School of Economics, Houghton Street, W.C.2. 6.15 p.m.

November 25.—Inst.H.E. (Northern). N. H. Buchi, "Bridges in the West Riding, with Particular Reference to the Wentbridge Viaduct." Union Hall, Whitehaven. 7 p.m.

Inst.H.E. Messrs. W. S. Hydes and A. W. Jacomb, "Highway Design." University Science Laboratories, Durham City. 7 p.m.

November 26.—O.S. D. S. Giles, "Irish Buses." Y.M.C.A., Newcastle upon Tyne. 6.30 p.m.

Rly.C. Annual dinner. Danish Club, Knightsbridge, S.W.1.

OFFICIAL NOTICE

SALFORD CITY TRANSPORT

SUPPLY OF MOTOR OMNIBUS CHASSIS AND BODIES

TENDERS are invited for the supply of 10 Single Deck Omnibus Chassis and/or Bodies and 40 Double Deck Omnibus Chassis and/or Bodies.

Specifications and Forms of Tender may be obtained, on written application, from the General Manager and Engineer, Salford City Transport, Frederick Road, Salford, 6, Lancs.

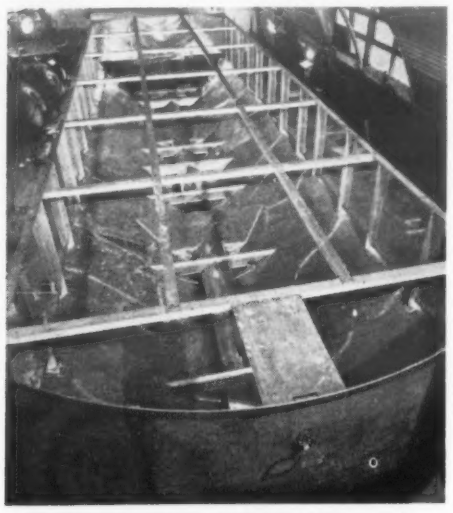
The closing date for receipt of tenders is 9.30 a.m. on Friday, December 16, 1960.

R. RIBBLESDALE THORNTON,
Town Clerk.

ROAD VEHICLE INDUSTRY

Aluminium Bulk Grain Semi-Trailer

ALUMINIUM sheet, sections and castings supplied by Alcan Industries, Limited (previously Northern Aluminium Co., Limited), for the construction of a grain hopper body built on a 25-ft. semi-trailer chassis by H. Woodward and Son, Limited, for Henry Shutt, Limited. The body is 26 ft. 8½ in. long, including a bowed front and 7 ft. 6 in. wide, with a capacity of over 600 cu. ft. A hoppered floor slopes down to the longitudinal centre line, but an external rectangular appearance is achieved by extending the bodysides below floor level. An interesting feature is a discharge screw conveyor running the full length of the body in a semi-circular channel set in the apex of the floor. The screw is driven by chain from a 5-h.p. electric motor accessible through a trap in the bowed front and overloading of the motor is prevented by taking the weight of the load on pitched panels over the screw. The panels have a 1½-in. clearance from the sloping floor for grain feed and are hinged for screw inspection. A full load can be discharged through a rear orifice in 20 min.; alternatively about 2½ tons of the load can be diverted through a gravity-discharge side outlet.



A view into the Woodward bulk grain hopper body, built of Noral products, showing how the full-length discharge screw is protected from the full weight of the load

Northern Trailers Development

FOUNDED some nine months ago for the production of haulage trailers of a new more-flexible design, Northern Trailers, Limited, is already finding its adapted premises at Bishopriggs too small and is building an extension to permit expansion of production up to several hundred trailers a year. Labour force is to be increased from 25 to 60. The company's development is said to have been delayed while an application for a development area loan was considered. Despite eventual refusal of the loan, the company has pressed on with its plans and has secured trade support.

Ferodo AM2 Approved

USE of the improved brake lining material, Ferodo AM2, has been approved by Leyland Motors, Limited, and is to be fitted to certain of its chassis in place of Ferodo DM8 linings. The vehicles to be fitted with AM2 include Comet CS3, Super Comet and the new Power-Plus heavy-duty goods chassis and all passenger chassis except Titan and Atlantean double-deckers.

Redux Brake-Bond Adhesive

SPECIAL properties of Redux 68, a new material added to its range of brake-bond adhesives by C.I.B.A. (A.R.L.), Limited, Duxford, are said to make it suitable for use on heavy commercial vehicle components. Redux 68 has been developed for bonding all types of friction materials to operate at bond-line temperatures over 350 deg. C. The new adhesive has been designed to fill gaps of up to 0.05 in. between components without appreciable reduction in strength.

Simms Anti-Diesel Smoke Device

RESULTING from the Minister of Transport's declared intention of legislating against the operation by drivers of a diesel-engine starting-fuel device while the vehicle is in motion, Simms Motor and Electronics Corporation, Limited, has written a letter to the Minister pointing out that Simms Motor Units already produces a cheat-proof excess-fuel device that defeats wrongful use. The Simms unit automatically prevents the introduction of excess fuel once the engine is running normally.

Inexpensive Electric Timer

POTENTIAL uses in method studies and for timing production cycles in industry and on motor vehicle test tracks are envisaged for a small portable electric stopwatch operator developed by Hird-Brown, Limited, Sale. Named Cub, the transistorised unit will operate two normal stopwatches simultaneously by distant interruption of light beams or electric circuits. The self-contained control unit is powered by dry batteries; it measures 9 in. by 6 in. by 4 in., weighs 10 lb. and costs £16, or £21 complete with two electric eyes.

High-Load Aeropreen Foam

PRODUCTION of a new polyether foam of exceptionally high load-bearing capacity is announced by Aeropreen Products, Limited, High Wycombe. The new material, Type AOP 26, has hardness at 40 per cent deflection of 44.5 kg. and density of 1.8 lb. per cu. ft. Compression set is under 10 per cent tested at 90 per cent deflection for 22 hr. at 70 deg. C. and measured 30 min. after release. The new foam meets a stated requirement of coachbuilders and certain furniture manufacturers for a harder foam than those previously available.

FERODO EXPANSION

Caernarvon Site Agreed

IT is announced by Ferodo, Limited, that the company is about to complete the purchase of a 50-acre site at Parciau Farm, Griffith's Crossing, 2 miles from Caernarvon and 7 miles from Bangor on the banks of the Menai Strait, for the erection of its new friction materials factory. The scheme has received the approval of the Board of Trade and the development of the land for industrial purposes has been approved under Town and Country Planning legislation.

The first stage of the factory will be 240,000 sq. ft. in area, with an adjacent canteen and service block. In view of its situation close to the Snowdonia National Park and overlooked from Anglesey across the Menai Strait, great care will be taken in design, selection of building materials and landscape treatment to ensure that the buildings harmonise with their surroundings. Initially the factory is expected to provide employment for about 500 people, although ultimately the figure may rise to 1,000.

This decision follows an announcement early in July that Ferodo, Limited, was seeking a factory site in the area to meet the long-term needs of the motor industry, and because suitable land and sufficient labour were no longer available at Chapel-en-le-Frith. The news received warm local approval as an important step towards relieving unemployment, which is well above the national level both in the Caernarvan area and Anglesey

MOTOR SHOW FILMS

Shell-Mex and B.P. Additions

IN its traditional Motor Show film party, Shell-Mex and B.P., Limited, this year introduced two new titles, *The Heroic Days* to the Shell library and *Mikhali* to the B.P. library. Mikhali is the name of the British Petroleum agent on the small island of Skiathos, in the Northern Sporades Group off the Greek mainland. There are no roads on the island and therefore no motor vehicles and the agent's business is mainly the supply of fuel to the fishing fleet and bottled butane for cooking. A light story about the marriage of Mikhali's son gives dramatic continuity in the 38-mm. film, for which excellent colour cinemaphotography provides an idyllic setting.

The Heroic Days, which runs for 32 min., forms part one of a series of Shell films on the history of motor racing. It covers the period from the 1902 Paris—Vienna, one of the last of the great city-to-city races, to the French Grand Prix of 1914. The film is complete in itself and provides a wealth of drama and excitement in scenes compiled from films of the actual events and a commentary based on contemporary reports.

The consultancy department of Power Jets (Research and Development), Limited, is now located at The Croft, 112 Church Lane East, Aldershot, Hants (Tel.: Aldershot 20451). The company's registered office remains at 25 Green Street, London, W.1 (Mayfair 7801).

Autumn floods in Britain culminated on November 5 with a series in the south-eastern counties: Electric trains were interrupted at Lewes but the Southern Region improvised a half-hourly steam service from Brighton to Eastbourne. The Haywards Heath to Lewes services could not be operated as the platforms were engulfed

COMPANY MEETING

Turnover, profits and exports again a record

Mr. E. R. Lewis (Chairman) at the Meeting of The Decca Record Company Limited:

The results for the year to 31st March, 1960, are by far the best in the Company's history. Balance from Trading Account amounts to £3,714,547, an increase over the previous year of £409,234 and the net profit at £1,260,729 shows an increase of £229,524. Consolidated turnover at £25,200,000 was £3,400,000 greater than that of the previous year and of course also a record. Exports reached the total of £8,130,000 including £2,380,000 to the United States and Canada. Results on the record side of the business showed an improvement and better results were also achieved by both the Navigator and Radar companies. We are satisfied that we maintained our leading position in these various fields of activities.

CURRENT YEAR

The record trade is entering the most active season of the year and we have never felt more confident as to our prospects. The sale of transistor radio sets and radio-gramophones has improved, though there has been a drop in the sale of television. Last year's radar turnover was by far the largest to date and we expect this to be maintained. Over the short space of 10 years contracts for ships' radar have exceeded 10,000. On the Navigator side marine contracts to date total 6,500 and present estimates point to improved results.

We expect another satisfactory year and I can assure you that it is our constant endeavour to maintain our proud record of progress.

The total dividend of 2s. 4d. for the year was approved.

DECCA

DECCA HOUSE,
ALBERT EMBANKMENT,
LONDON, S.E.11.

Buses for Trolleybuses

(Continued from page 9)

Acton depot was converted for electric trams and that at Shepherds Bush closed. For the extensions of the Uxbridge Road route new depots were opened at Hanwell and a smaller one at Hillingdon.

Hillingdon depot did not remain in use as an operational tram shed for many years, but both Acton and Hanwell depots outlived the trams and were converted to house trolleybuses. Acton depot was converted to a trolleybus depot in April, 1936, some months before either routes 607 or 655 came into being, to house trolleybuses operating route 660 and later route 666. Vehicles for routes 607 and 655 later operated from Acton depot until the conversion work at Hanwell had been completed, when Acton was closed for operational purposes. Hanwell depot was first used for trolleybuses in November, 1936, when route 607 commenced running.

Rolling Stock

The first 100 cars, those in red and white livery, were built by Hurst-Nelson on Peckham trucks with two 25-h.p. B.T.H. motors; the remaining 50 had Milnes bodies on Maguire trucks with two Westinghouse motors also of 25 h.p. These latter were the cream cars. Of the 150 blue and white vehicles, delivered in 1902, 125 also had Milnes bodies and the remaining 25 British Electric bodies. All had Westinghouse equipment, but in this case the motors were of 40 h.p. Brill trucks were used.

The next delivery of trams was in 1907, when a batch of 40 vehicles with covered tops, but open balconies, was received. These were built by the United Electric Car Co., Limited, on Brill trucks with two 40-h.p. Westinghouse motors. Their livery, and that of all later deliveries, was red and white. Between 1909 and 1912, over half the original red and white cars and nearly a third of the blue and white trams were equipped with covered tops. About this time the various types were given class letters; the first hundred were known as the Z-class, or Y if fitted with a covered top; the batch of cream cars became the X-class and the original blue and white cars with open tops became W.1 or U and those with covered tops W.2 or U.1, depending on the delivery batch. The 40 vehicles dating from 1907 became the T-class. In 1914, the X-class, none of which was fitted with a covered top, was stored and, after the war, the cars were sold. During the 1920s many modifications were carried out to various cars, including the fitting of more powerful motors, and much reclassification took place.

The Feltham Cars

The single-deck one-man vehicles put into service in the 1920s were conversions. One, a four-wheeler, was adapted from an earlier Metropolitan Electric Tramways vehicle and was classified S.1 by the L.U.T., the others were rebuilt from L.U.T. open-top double-deckers and became class S.2. The last batch of trams delivered to the L.U.T. were the 46 Feltham cars, class U.C.C. These had E.M.B. trucks with two 70-h.p. G.E.C. motors. Although normally confined to route 7 they ran on 55 on Sundays. They outlived the remainder of the L.U.T. vehicles by some 20 years, as with the demise of the L.U.T. tram system they were first transferred to South London routes and then most of them went to Leeds for a further period of service. The earlier L.U.T. trams were scrapped as the routes were converted to trolleybus operation. For many years the Hanwell trolleybus stock has consisted basically of 100 (latterly run down to about 70) Leyland vehicles, class F1, with 70-seat Leyland bodies, supplemented in recent years by some 15-20 B.U.T. postwar 8-ft. wide trolleybuses. It is understood that these last-named are being returned to Fulwell depot and that they, or an equivalent number of vehicles, will be stored for the time being. The twin-steering axle Leyland trolleybus No. 1671 was for a short time stationed at Hanwell.

The first two issues of *Top Cover*, a new house magazine introduced by Pinchin Johnson and Co., Limited, the paint manufacturer, 4 Carlton Gardens, London, S.W.1, provide numerous interesting items concerning transport matters and reveal a lively editorial range, not lacking in humour. As the company's products are claimed to do, the subjects dealt with cover just about everything. Readers wishing to receive regular copies of *Top Cover* should write directly to the company.

Transistorised fluorescent lighting by C.A.V., Limited, powered by Lucas 12-volt jelly-acid battery fitted in the City of London's historic state coach provided this excellent view of the new Lord Mayor, Sir Bernard Waley-Cohen, in the traditional procession last Saturday

GREAT EASTERN LINE

Current Supply Changeover

DETAILS OF WORK INVOLVED

CONVERSION of the Eastern Region Liverpool Street — Chelmsford — Southend 1,500 volt d.c. lines to alternating current at 50 cycles is being carried out in two successive operations; first came Liverpool Street—Shenfield—Southend at 6,250 volts, accomplished November 4-6, and secondly Shenfield—Chelmsford at 25,000 volts. The execution of the first changeover was described in our November 12 issue. The overhead line equipment work falls into four main groups:

1. Replacement of or modification to, existing insulators not suitable for the increased a.c. voltages.
2. Provision of neutral sections for sectioning between different sources of electrical supply.
3. Altered switching and feeding arrangements.
4. Installation of booster transformers and return conductors.

For practical and economic reasons the existing copper section of the 1,500-volt d.c. equipment has been retained. Little alteration has been necessary to the existing portal type supporting structures in the 6,250 volt sections, Liverpool Street—Shenfield, and Shenfield—Southend. Structures in the section between Shenfield and Chelmsford, now to be energised at 25,000 volts, have had additional equipment attached for the support of the catenary and contact wire. This arrangement is necessitated by the restricted boom-catenary clearances.

PRINCIPAL ELECTRICAL CONTRACTORS

British Insulated Callenders Construction Co., Limited	Overhead equipment.
British Insulated Callenders Cables, Limited	Cabling.
Pirelli General Cable Works, Limited	Oil-filled cables.
General Electric Co., Limited	Switchgear.
Aberdare Cables, Limited	Track feeder cables.
Enfield-Standard Power Cables, Limited	Track feeder cables.
Switchgear and Equipment, Limited	Isolating switches and overhead lines.
Hackbridge and Hewittic Electric Co., Limited	Isolating switches and overhead lines.
Fuller Electric, Limited	Booster transformers.
Foster Transformers, Limited	Booster transformers.
C. A. Parsons and Co., Limited	Main power transformers.
Crompton Parkinson, Limited	Main power transformers.
Bruce Peebles and Co., Limited	Main power transformers.
Associated Electrical Industries, Limited	Switchgear and conversion of electrical equipment on rolling stock.

On the Liverpool Street—Shenfield main line section which now operates at 6,250 volts, diabolo insulators for supporting equipment, where they are beneath bridges, have been changed, along with dumb-bell type span-wire insulators, insulated knuckles and Permali beam type section insulators. On the Shenfield—Southend Victoria branch it has been necessary to change those dumb-bell type span-wire insulators which were directly over the tracks and also insulated knuckles. The Shenfield to Chelmsford main line section to operate at 25,000 volts requires major rehabilitation. The previous span-wire construction is giving place to the normal a.c. cantilever arrangement, but erected within the existing portal structures. Insulators previously installed for 1,500-volt d.c. operation are unsuitable for the increased voltage and are being replaced by standard 25,000-volt types.

Inserting Neutral Sections

Throughout the scheme, 33 neutral sections have been installed of both the over-lapping and section insulator types. The section insulator type neutral section has reduced the complication to the overhead line equipment involved, but its application is restricted to sections of line where normal running speeds are low. In general, the existing d.c. sectioning overlap spans have been retained, suitably altered to withstand the higher a.c. voltages by major replacement of the existing insulators.

Where possible new a.c. type isolating and feeding switches have been mounted on existing switching structures, but in some cases, it has been necessary to install entirely new switching structures. To enable a quick changeover on conversion, duplicate feeding arrangements have been provided for the interim period. A large number of specially uprated a.c. isolating switches have been installed in order to carry the larger d.c. traction currents during this time. In accordance with standard arrangements, motorised switches are included at each neutral section. Booster transformers and return conductors have been provided on all sections of line, except from Bow Junction to Stratford. Booster transformers are installed at the lineside, approximately at two-mile intervals.

Ancillary Works

Modifications to existing bonding have been comparatively minor. Repositioning of certain bonds has become necessary due to the signal engineer's alterations to existing track circuits necessitated by the changeover from d.c. to a.c. All new overhead line structures have been bonded to rail in accordance with standard bonding arrangements. Certain connections, sidings and loop lines have been additionally wired for electric traction coincident with the main conversion work.

Of these the major item has been the wiring of the up and down Cambridge lines between Bow Junction and Stratford, and A and B carriage lines leading to Thornton Fields carriage sidings. Concurrent with the main work of conversion, contact wires in the Shenfield area have been lowered from 20 ft. to 18 ft. 6 in. so as to be commensurate with the maximum to be met on new a.c. installations. The contact wires at Chelmsford will be lowered this winter.

Power Supply

Power supply arrangements are substantially as for the 1,500 volt d.c. system, but the existing feeder stations at Bethnal Green, Stratford, Chadwell Heath, Gidea Park, Ramsden Bellhouse, Rayleigh and Prittlewell have been re-equipped with single phase or Scott-connected transformers and 6,250-volt oil circuit breakers in place of the rectifiers and d.c. high-speed circuit breakers. The d.c. feeder station at Shenfield has been replaced by a new one on the country side of the station and a new 25,000-volt single phase supply is taken from the new Shenfield Grid station. This and a new 33,000-volt supply at Bethnal Green will provide for the load to be expected when the main line electrification to Colchester, Ipswich and Harwich is completed. A new feeder station building has been provided at Prittlewell, but at Ramsden Bellhouse and Rayleigh the existing structures have been used. The new 33,000-volt supply at Bethnal Green has replaced a 22,000-volt supply at Cross-wall feeder station (near Fenchurch Street), which has been abandoned. Both new supplies are duplicated.

Electrification at 25,000 volts from Shenfield to Colchester and beyond removes the necessity of a feeder station at Hylands and this has been abandoned. At Shenfield the 6.25 kV switchboard is fed from the 25 kV switchboard through two 5 MVA 25 to 6.25 kV single-phase transformers. The 33 kV three-phase cable network between Bethnal Green, Stratford and Chadwell Heath has been reinforced and to cope with the increased fault level all the 33 kV oil circuit breakers at Bethnal Green, Stratford, Chadwell Heath and Gidea Park have been uprated to 750 MVA.

Switchgear

The new 6.25 kV switchgear at feeder stations has been housed in new buildings, except at Bethnal Green, where the existing structure has been modified and extended. Track sectioning cabin locations remain substantially as for the d.c. system, but new buildings have been provided to house the 6.25 kV switchgear, except at Fanton and St. Mary's, where the new switchgear has been installed in place of the existing d.c. high-speed circuit breakers. An entirely new track sectioning cabin has been provided at Chelmsford and the existing d.c. track sectioning cabin at Ingatestone has been abandoned. At Shenfield feeder station the 25 kV switchgear is rated at 300 MVA; that at Chelmsford at 150 MVA. The 6.25 kV switchgear is generally rated at 150 MVA with the exception of track feeder circuit breakers at Billericay, Fanton and St. Mary's track sectioning cabins, which are rated at 100 MVA.

Track feeder circuit breakers are generally fitted with distance impedance protection, set to trip on forward current only, with thermal protection as a safeguard against persistent faults of a magnitude similar to peak traction loading. Incoming feeder circuit breakers are fitted with overcurrent protection which forms a back-up for the distance impedance protection. Earth fault protection is provided on both sides of power transformers, which also have Buchholtz protection, all of which are arranged to trip both high-voltage and low-voltage oil circuit breakers. Bus section switches are fitted with overcurrent protection which is effective only during the closing period.

PRINCIPAL SIGNALLING CONTRACTORS

Westinghouse Brake and Signal Co., Limited	Alterations to signals between Maryland and Gidea Park.
The Siemens and General Electric Railway Signal Co., Limited	Signalling alterations between Liverpool Street and Bethnal Green, Shenfield and Southend Victoria.
Associated Electrical Industries —G.R.S., Limited	Signalling alterations between Mile End and Stratford, Gidea Park and Shenfield.
Pirelli General Cable Works, Limited	Telecommunications cables.
Standard Telephones and Cables, Limited	Telephones and associated equipment.

Supervisory Control

Inter-tripping between incoming feeder circuit breakers and the supply authority circuit breakers has been arranged as required. In addition, all 25 kV circuit breakers incorporate an instantaneous direct acting overcurrent trip which may be set as required to give back-up protection. An automatic reclosing feature is provided on the track feeder circuit breakers. For 25 kV, the reclosing time interval is adjustable between 2 and 10 seconds and for 6.25 kV it can be varied between 10 and 120 seconds. Remote supervisory control and indication facilities for the circuit breakers and motorised overhead line switches have been provided at the new Romford electrical control room, which will ultimately control such equipment on the lines from Liverpool Street to Southend Victoria, Clacton, Harwich and Ipswich, in addition to the Bishops Stortford, Hertford East, Enfield Town and Chingford lines.

Supervisory control is effected by a frequency-modulated voice frequency telegraph system, the signals being transmitted over pairs in telecommunications type cables. Monitored working and standby channels are provided. The control panel at Romford is of the normally dark discrepancy key type. Telephone facilities are provided between the control room and the points of supply and control, overhead line depots, traffic control and the car sheds at Ilford, together with G.P.O. facilities. In addition, the control room is the central point in the supervisory and electrification telephone systems, the latter being terminated on a special telephone switchboard.

Rolling Stock

The 1,500-volt d.c. rolling stock comprises 92 sets of Shenfield three-car type, built 1949 and 32 sets of Southend four-car type, built 1956. This stock is being converted to a.c. and 30 Shenfield three-car units have already been dealt with. These, together with a.c. four-car multiple unit trains built for the London, Tilbury and Southend Line, are being used to operate the Liverpool Street and Southend Victoria services until rest of the d.c. stock has been converted. The existing d.c. electrical equipment on the motor coaches remains, but the 1,500 volt d.c. supply, originally taken direct from the contact wire through a pantograph on the motor coach, is now taken from transformer and rectifier equipment on the adjacent vehicle which has been altered to carry the Stone-Faiveley pantograph.

On the Shenfield 1949 stock, this adjacent vehicle now carries the guard's brake with the pantograph, air blast circuit breaker, potential measuring transformer and roof lead-in bushing. An insulated h.t. cable carries the a.c. line current to the 25 kV to 6.25 kV changeover switch mounted on the transformer, which feeds an air-cooled bridge-connected semi-conductor rectifier from a fixed ratio secondary winding. The output is then taken via a smoothing choke and a semi-permanent jumper to the motor coach. A third winding on the transformer supplies the oil pump, fan motor and battery charger (which replaces the original d.c. motor-generator set).

Rearrangement of Seating

On the motor coach the space originally occupied by the guard's brake has been replaced by passenger

(*Continued on page* 18)

OFFICIAL NOTICE ANNOUNCEMENTS

Official Notices, Tenders, and other announcements, can be accepted up to first post Tuesday morning for insertion in the current week's issue.
Rate: 48s. per single column inch.

OFFICIAL NOTICES
MODERN TRANSPORT, 3-16 WOBURN PLACE, LONDON, W.C.1

TIPPING SEMI-TRAILER

American Design By Villiers

CLAIMED to be the first British semi-trailer successfully adapted for tipping, the new Villiers frameless trailer incorporates a principle that has been marketed in America for the past five years by the Anthony Company, Streator, Illinois. It is now being marketed in the United Kingdom by John Villiers and Co., Limited, 69 Knightsbridge, London, S.W.1.

The Villiers frameless tipping semi-trailer, to American Anthony Company design, embodies a fifth-wheel-mounted ram and two radius arms; selective braking permits either the tractor or the trailer wheels to roll during the tipping operation

The conventional heavy trailer frame has been eliminated and the hydraulic tipping ram is mounted on a special plate above the tractor fifth wheel. The ram picks up at the top of the front end of the body above the centre of gravity of the load; hinged through the same centres at the base of the ram are two radius arms which connect half-way along the underside of the floor of the body. Equipment is incorporated to enable the brakes to be set selectively on either the tractor or the trailer.

During tipping, the wheels of the trailer roll forwards when the tractor brakes are set and the trailer axle is used as a tipping hinge. The normal movement of the fifth wheel is prevented giving a firm connection between the tractor and the trailer. The design aims at providing maximum stability at all times, even when tipping with a high degree of articulation. Stability is claimed to increase as tipping proceeds since the wheelbase shortens as the trailer is raised and the point of lift remains above the centre of gravity.

The design also provides traction advantages in that any wheel or set of wheels can usually be extricated from a rut simply by operating the ram. Thus, by setting the appropriate brakes, trailer wheels can be rolled forwards or tractor wheels can be rolled backwards. The frameless construction should also show a saving in tare weight over a comparable conventional semi-trailer, though not necessarily over a rigid tipper of comparable capacity, but operating costs might well be less than for a rigid vehicle. The Villiers machine is designed to be quickly detachable, leaving the tractor free for working other types of semi-trailer.

LUCAS COMPANIES RENAMED

Industrial and Gas Turbine

BECAUSE it better describes the wider range of products being manufactured, Lucas Industrial Equipment, Limited, has been adopted as the new title of the company within the Lucas organisation formerly known as Joseph Lucas (Hydraulic and Combustion Equipment), Limited. The main policy of the new company is the exploitation of the industrial market for hydraulic equipment, with a comprehensive range of hydraulic pump and motor units suitable for most current requirements.

Hydrostatic Drives

In parallel with the supply of basic units, hydrostatic drives for a large variety of transporting equipment and machinery are being developed and embodied into prototype tractors and other heavy-duty vehicles as a prelude to their incorporation into production units; the experience so gained is leading towards their introduction into an increasing proportion of plant and site and production machinery. In conjunction with government and university institutions, additional applications are being constantly explored. Subsidiary products include heavy and medium oil-burning equipment, test rigs for calibrating gas turbine fuel systems and hydraulic equipment, air lubricated bearings, industrial gas turbine fuel systems, self-contained heating units, expansion turbines and other specialised products.

Mr. C. D. Skinner continues to lead the new company in his capacity of director and general manager, with Mr. E. H. N. Breeze and Mr. C. K. J. Price respectively as commercial manager and chief engineer.

Worldwide Production

Joseph Lucas (Gas Turbine Equipment), Limited, has also been renamed Lucas Gas Turbine Equipment, Limited. A leader in the field of research, design, development and manufacture of gas turbine fuel systems, the company is also well known and established in the research, design, development and manufacture of combustion equipment for aircraft gas turbine engines and equipment for aircraft hydraulic systems. It has factories in Birmingham, Liverpool, Burnley, Canada and Australia and its products are manufactured under licence throughout the western hemisphere.

No alteration to the constitution of the company is involved.

MARK IV ROLLS-ROYCE DIESELS

Increased Overall Efficiency

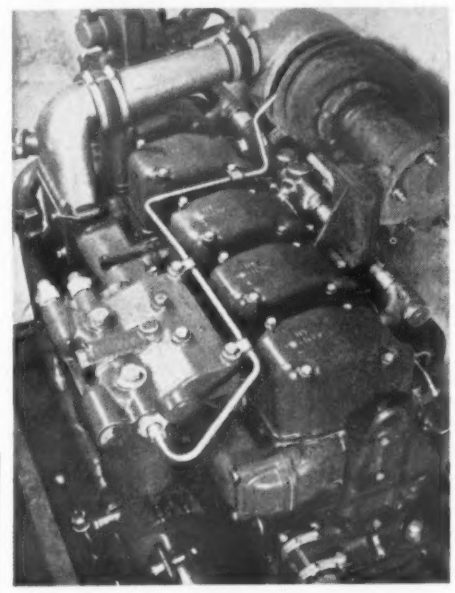
THE range of Rolls-Royce diesel engines has been extended to include units of four, six and eight cylinders fitted with individual 4-valve cylinder heads and improved pistons.

Although the reliability of Rolls-Royce diesel engines has always been remarkable, even greater reliability has been achieved in the Mark IV range and at the same time servicing downtime has been considerably reduced. From seven to 12½ per cent increase in power coupled with up to seven per cent decrease in specific fuel consumption is claimed over the original C range engines, with no resultant increase in overall dimensions.

Increased power has been obtained by improving the gas flow to and from the combustion chamber by the use of four valves in each cylinder head, which also results in increased valve reliability at higher ratings. Fuel injectors of an improved design are housed under the valve rocker covers, with an external injector spill system to ensure that dilution of the lubricating oil does not occur.

Easier Servicing

The introduction of individual cylinder heads brings many advantages from a servicing viewpoint. The need for lifting tackle during fitting and removal operations is dispensed with—a very desirable feature when field servicing of a cylinder head becomes necessary. Good joints between individual cylinder heads and their liners are more easily obtained than when one head seals two or more liners. The smaller individual head joint gaskets are more easily stored and transported and are consequently less likely to sustain accidental damage.



Individual cylinder heads on a Rolls-Royce six-cylinder Mark IV diesel engine

New-type pistons are fitted to increase engine reliability and to reduce the tendency towards the crankcase and cylinder liner erosion which occurs on high-powered diesel engines. They are manufactured from an improved material and the top compression ring groove is provided with a cast-iron insert.

WHEELED CRANE OUTRIGGERS

Steels Engineering Development

INCREASED scope of lorry-mounted and self-propelled cranes is brought about by a new development by Steels Engineering Products, Limited, which designs and manufactures Coles cranes. With practically all but the smallest types of self-propelled and lorry cranes it is necessary to use telescopic outriggers and screw jacks to obtain maximum lifting capacity, a practice which completely prevents any chassis movement of the vehicle once the outriggers are set.

A Coles 25-ton capacity mobile crane fitted with the new wheeled outrigger carriages

The Steels development, which is the subject of a patent application, is designed to permit forward and reverse movement of a crane with outriggers extended and with a heavy or even maximum load on the hook. It consists of a rocking beam suspension bogie mounted on each of the four outriggers to replace the usual blocks or packing. Each bogie has two rollers fitted with solid rubber tyres. The only condition necessary for use of the equipment is a reasonably level well-made road.

The new accessory will make possible by a crane of up to 25 tons capacity, in a mobile condition, duties which would normally be possible only by the use of blocked stabilisers.

PUBLIC WORKS AND MUNICIPAL SERVICES

Congress and Exhibition at Olympia

TRANSPORT vehicles play only an incidental part in the Public Works Exhibition, which remains open at Olympia until November 19, but examples of products of most British commercial vehicle manufacturers are on display in a wide variety of specialist roles, indicating the extent to which mechanical transport is contributing to efficient public works and municipal services. The exhibition, held every second year in conjunction with a congress covering a wide variety of subjects, many dealing with mechanisation in the fields covered, is of great importance for the vehicle industry, since it invariably attracts many foreign visitors and thus stimulates export business. In 1958, for example, delegates from 86 countries attended the congress and exhibition.

Commer street and gulley washer in service in a Hong Kong street; right, a Dempster Dumpster 8 cu. yd. drop-bottom container mounted on a Bedford chassis

Tidal-Flow Traffic Control

One of the new items of equipment designed for more efficient movement of peak-hour traffic near large towns is being demonstrated by the automotive and industrial division of the Westinghouse Brake and Signal Co., Limited. It comprises retractable kerb-walls 9-in. wide, which can be raised pneumatically 12 in. above road level or lowered flush with the road surface. The kerbs are of precast concrete in 14-ft. lengths; when out of use they rest on cast-iron cylinders set in channels along the roadway and are strong enough to bear heavy traffic. The top surface of the kerbs carries normal road lane markings. The kerbs are raised by compressed air at 100 p.s.i. pressure from a master control valve, but in emergency individual sections can be lowered locally.

A typical application of retractable kerbs, hydraulically operated examples of which have been in use in the United States for as long as 20 years, is in a four-lane approach road to a town centre to provide tidal traffic flow. The three parallel lines of kerbs required are manipulated to provide three inward traffic lanes and one outward during the morning peak and the reverse during the evening exodus. The central kerb is raised to divide the road equally during normal hours. Such a system would obviously need special warning signs and better lane discipline at transition times than many drivers now exercise, but despite lack of uniformity of width and the many bottlenecks in existing urban main roads, many sections come to mind where such a system could provide easement of present congestion.

Vehicle Exhibits

Among the vehicles to be given a first public showing at Olympia this week is the A.E.C. Dumptruk, which was introduced last year. Claimed to be Britain's fastest-tipping heavy-duty dumper, the vehicle is powered by the A.E.C. AVT1100 turbocharged diesel with an output of 340 b.h.p. at 1,900 r.p.m. driving through a British Twin-Disc three-stage torque converter; the Dumptruk, which is marketed in the U.K. by Scottish Land Development Corporation, has a struck capacity of 18 cu. yd. and a heaped capacity of 23½ cu. yd. and can discharge a 25-ton load in 9 sec. A full range of A.E.C. diesels fitted with Twin-Disc torque converters, covering a power range from 35 to 360 h.p., is exhibited.

Vehicles developed by Douglas Equipment, Limited, form the basis of four exhibits, namely a 944 10-ton dumper on a four-wheel-drive chassis powered by the Rootes opposed-piston two-stroke diesel engine; a new 22-ton dumper with 250-h.p. Rolls-Royce diesel engine and automatic transmission and a 14-ton four-by-two chassis fitted with a Davies 4½-cu. yd. concrete mixer, both shown by Thos. W. Ward; and a Rolls-Royce-powered Douglas six-by-six, also with automatic transmission, shown with spreader body by Atkinson's Agricultural Appliances. The comprehensive range of heavy-duty dumpers produced by Fodens, Limited, which now covers payload capacities from 9 to 28 tons, is represented by the latest version of the widely used FED6/30. This is powered by the new Mark IV 210-b.h.p. turbocharged Foden two-stroke diesel driving through a 12-speed transmission. The Mark III 150-h.p. diesel engine powers the other Foden on the stand—an eight-wheeler fitted with Ransomes and Rapier 8 cu. yd. concrete mixer featuring hydrostatic drive from the vehicle engine.

The Leyland Group stand features a new Mark II version of the Scammell Sherpa four-by-two dumper, which mounts a new 9 cu. yd. (struck) Telehoist body mounted directly on the chassis and is uprated to 22 tons gross. Power is provided by the Leyland 150-h.p. O680 diesel driving through a six-speed ZF gearbox and Scammell double-reduction axle. A Scarab mechanical horse with 6 cu. yd. side-loading refuse collector semi-trailer and examples of Albion and Leyland diesels ranging in power from 68 to 265 b.h.p. is also on display. The Thornycroft range of industrial engines for generating and pumping sets, oil drilling rigs, compressors and so on is exhibited by Transport Equipment (Thornycroft), Limited, which also shows its recently introduced medium-load dumper chassis fitted with Edbro-B. and E. tipping gear and steel body for 12 to 14 tons capacity. The chassis has been designed with ease of servicing particularly in mind and is powered by the Thornycroft 170-b.h.p. diesel engine driving through a combined five-speed and transfer gearbox for two- or four-wheel drive.

A.E.C. 18 cu. yd. Dumptruk; right, Foden six-wheeler with Ransomes and Rapier 6 cu. yd. concrete mixer hydrostatically driven from vehicle engine

Both new: Leyland-powered Mark II Scammell 9 cu. yd. Sherpa dumper and, right, Fordson-powered Muir-Hill 6 cu. yd. dumper

The range of heavy-duty dumpers shown by Aveling-Barford, Limited, is topped by a four-by-two giant with a payload capacity of 30 tons, features of which are a Rolls-Royce diesel engine producing 450 b.h.p. and 1,200 lb./ft. torque driving through an Allison Torqmatic (hydro-dynamic-mechanical) transmission.

Cleaner Refuse Collection

The trend towards cleaner and quicker refuse collection is marked on a number of stands. Dennis Bros., Limited, shows its recently introduced Paxit automatic system, which embodies continuous compression loading and either one or two sets of power-operated bin lifting and discharge gear. The loading gear, shown separately, illustrates how the bin is sealed up to the time of discharge inside the body. Among the range of municipal services vehicles shown by Karrier Motors, Limited, is a 2-3 ton Bantam chassis mounting a new Glover, Webb and Liversidge

(*Continued on page* 20)

Great Eastern Electrification

(*Continued from page 15*)

accommodation to balance the reduction of seating capacity in the altered trailer coach. Power, passenger heating and compressor circuits remain unaltered, but a few minor modifications have been made to the control gear, new master controllers having been fitted.

The Southend 1956 stock is being converted in a similar way, but in this case, the former d.c. driving trailer now carries the pantograph and the a.c. rectifier equipment. Existing traction motors of this stock require modification to work on d.c. containing an a.c. ripple. These trains have a similar performance to the new standard a.c. stock and to enable the units to multiple with this, 36-way control couplers are fitted on each unit end. The control gear operating coils have been replaced by 110-volt coils, a 110-volt battery and charger being provided. New master and brake controllers are fitted. The electrical work was carried out under the general direction of Mr. T. C. B. Miller, M.B.E., M.I.Mech.E., M.I.Loco.E., chief mechanical and electrical engineer, Eastern Region.

Signalling

Under the 1,500 volt d.c. system, 50-cycle a.c. equipment was provided for the colour-light signalling on the Liverpool Street—Chelmsford—Southend Victoria lines. Track and detection circuits have been converted to 83⅓-cycle a.c. operation to render them immune first to the former d.c. traction current and now to the 50-cycle a.c. traction current. The line circuits, generally, have been converted to d.c. operation. The introduction of new equipment operating at 83⅓ c.p.s. has necessitated the provision of rotary frequency converters at the places from which signalling power is taken. These machines consist of two alternators and a three-phase synchronous motor mounted in line with adjustable mechanical couplings between the units. The alternators feed to two new power feeding circuits which have been provided throughout the lines concerned. One of the circuits is screened and the power carried is used solely for the local coils of the relays. Elaborate precautions are taken to ensure that this feed remains completely free from 50 c.p.s. voltages. The 50 c.p.s. power system has been retained for signal lighting and to feed transformer rectifier sets.

The signal engineer has also been responsible for the provision of telecommunication type cables between Liverpool Street and Southend Victoria. These are necessary for the electrification telephone and traction supervisory control circuits. The signalling work was directed by Mr. R. A. Green, M.B.E., E.R.D., A.M.I.E.E., signal engineer, Eastern Region.

Further Electrification

The Eastern Region is issuing a special souvenir timetable to commemorate the event of the introduction of Enfield Town, Chingford, Hertford East and Bishops Stortford electrifications. Well illustrated, it contains a message from Mr. H. C. Johnson, general manager, a route map showing the Great Eastern lines concerned in the changeover, as well as details of the new electric and improved diesel train services, due to commence on November 21. The new timetable shows an all-round improvement in train services, with big cuts in journey times. At Lower Edmonton, the existing service to Liverpool Street will be stepped-up from two trains an hour in off-peak periods, to an average of eight an hour throughout the day. Moreover, non-stop trains to London from this station will cut the present 34-minute journey to 16. Fast trains between Chingford and Liverpool Street will take between 20 and 23 minutes instead of 34 or 35. The Churchbury loop, renamed the Southbury loop, is being reopened for the new 20-minute outer suburban electric service via Broxbourne.

Electric trains have been operating experimentally this week on Liverpool Street to Enfield Town and Chingford services. Train of L.T.S. stock arriving on Platform 3 at Liverpool Street from Chingford; right, Chingford set departing

The Dunlop Rubber Co., Limited, has entered into a deed of covenant to pay £10,000 a year for seven years to Birmingham University. The gift is in answer to an appeal from the University, which is planning to raise £1,638,250 for the purposes of building new halls of residence.

SOCIAL AND PERSONAL

Export Council for Europe

FULL membership of the Export Council for Europe, under the chairmanship of Sir William McFadzean, president of the F.B.I., has now been announced. The Council will be organised on lines, and for purposes, similar to those of the Dollar Exports Council. The motor industry is represented through Mr. Brian Rootes, president of the S.M.M.T. and managing director of Rootes, Limited, while other members are Mr. A. M. Browne, vice-chairman of B.E.A.M.A., and chairman of Hackbridge and Hewittic Electric Co., Limited, and Mr. J. S. Brown, director, Stone-Platt Industries, Limited.

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Mr. J. H. Allen, B.Econ(S.A.), M.Inst.T., is to take up the post of general manager, Rhodesia Railways, in succession to Mr. J. W. S. Pegrum, who is to proceed on leave pending retirement on January 15, 1961. Mr. Allen joined Rhodesia Railways as a clerk in the general manager's office in 1928, having spent five years with the South

Mr. J. H. Allen

African Railways. In 1949 Mr. Allen was appointed rates assistant, becoming commercial assistant and then commercial superintendent in May, 1950. In 1951 he was appointed to the post of deputy chief superintendent of transportation (commercial). Following the decision to set up a commercial department, he became the first chief commercial manager in February, 1954. Two years later there was a considerable reorganisation of senior appointments and Mr. Allen returned to the general manager's office to fill a newly-created post of principal executive officer (movement). He was appointed deputy general manager in January, 1958. In this capacity, between June and October this year, Mr. Allen undertook a study tour of British and a number of Continental railway systems as well as certain worldwide commercial and industrial enterprises. Mr. Allen's other activities have been of a widespread nature. He was a chairman of the Public Relations Advisory Board and was a director of the Central African Rhodes Centenary Exhibition in 1953.

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Mr. T. H. Martin has retired from Canadian National Railways as general manager of the express department after 43 years of service.

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We record with regret the death of Mr. A. Gardner, a director and commercial manager of Cammell Laird and Co., Limited. He was 66.

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Mr. H. W. Hadaway, A.M.I.E.E., M.I.R.S.E., has been appointed a principal executive assistant in the signal engineer's department, London Transport, with the title of installation engineer (signals).

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At the annual general meeting of the Manchester and District Traffic Association the following were elected or re-elected officers and council members: president, Mr. N. Potts; vice-presidents, Messrs. S. Foulkes, P. W. Lunn and H. Heap; chairman, Mr. H. Keating; vice-chairman and education officer, Mr. L. R. D. Whitnall; hon. secretary, Mr. J. Myers.

* * *

On November 30, at 6 p.m. at the Royal Society of Arts, Mr. Alex Samuels, chairman of the London and Home Counties Traffic Advisory Committee, reads a paper, "Some Traffic Problems of London." Admission to non-members is by invitation. Sir Richard Nugent, former Joint Parliamentary Secretary at the M.o.T., will preside.

* * *

Five new directors have been appointed to the board of John B. Pillin, Limited, West Hartlepool, maker of Lubrequipment and a member of the Castrol group. They are Messrs R. Adams, J. A. P. Coe, L. J. Field, A. F. MacDonald and J. W. MacMahon. Mr. J. W. MacMahon is also a director of the group's industrial company, Wakefield-Dick Industrial Oils, Limited, and general manager of its industrial division.

* * *

The Franklin Institute of America has awarded its George R. Henderson medal for railway engineering to two British engineers for their invention and development of the Deltic diesel engine, first used in small craft of the Royal Navy and now used for railway locomotives. Mr. H. Sammons, C.B.E., managing director of D. Napier and Son, Limited, who invented the engine, and Mr. E. Chatterton, retired chief engineer, piston engine division of Napier, who designed and developed it, were thus honoured at a ceremony in Philadelphia.

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The annual dinner of the Public Transport Association was held in London on November 10 and was presided over by Mr. A. F. R. Carling, chairman of the council, who was supported by past chairman, leaders of the bus industry and of the commercial vehicle industry, Ministry officers, traffic commissioners and the presidents of sister and kindred associations. The toast of the Association was proposed by Mr. Ernest Marples, Minister of Transport, and was replied to by Mr. Carling who at the same time proposed "The Guests." The response was by Sir Edwin Herbert, who indulged in some witty reminiscence of the early days of the Road Traffic Act, 1930. A pleasing feature of the evening was the announcement that Mr. Stanley Kennedy, until recently chairman of the Tilling group, and a former chairman of the P.T.A., had been made an honorary member.

The Goodyear Tyre and Rubber Co. (Great Britain), Limited, announces the appointment of Mr. A. H. Fuhrig as manager, technical division.

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We record with regret the death of Councillor W. P. Taylor, chairman of Warrington Corporation Passenger Transport Committee since 1952. He was 72 and a former chairman of the area C of the M.P.T.A.

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Mr. F. V. Spillard, assistant district traffic superintendent, Redhill, has been appointed district traffic superintendent, Exeter, Southern Region, B.R., with effect from January 1, 1961, vice Mr. C. Williams, retiring.

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We record with regret the death of Mr. L. R. Cotton, who for the past 13 years has held the post of divisional engineer "A" (railways), London Transport, with control of four lines—the Metropolitan, Bakerloo, District and Piccadilly.

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The Rover Co., Limited, announces that Mr. E. G. Commander has retired from the board due to ill-health. It is proposed that Mr. L. G. T. Farmer shall be appointed executive vice-chairman and Mr. M. F. C. Wiiks is to be sole managing director.

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In view of his impending retirement, Mr. W. T. James has resigned from the boards of J. James and Sons, Limited, Neath and Cardiff Luxury Coaches, Limited, and the Rhondda Transport Co., Limited. He is succeeded as chairman of the first two companies by Mr. W. M. Dravers, and as Rhondda chairman by Mr. T. Robert Williams. Mr. F. K. Pointon has been appointed a director of all three companies.

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The position of managing director at E.R.F., Limited, left vacant through the recent death of Mr. Dennis Foden, has now been filled by the election of Mr. Edwin Peter Foden. Mr. E. P. Foden is the youngest son of E. R. Foden who founded the company in 1933. After leaving Rossall School in 1946 he commenced his engineering career studying at North Staffordshire Technical College. He left there to join E.R.F., with whom he has been associated ever since, except for a period of military service in Germany as a R.E.M.E. officer. Since leaving the Army Mr. E. P. Foden has been closely connected with E.R.F. administration in various departments, latterly specialising in the export field. He was appointed a director in 1950 and export director in 1956. Mr. Foden is very well known in northern motor racing and golfing circles, being next year's captain of Sandbach Golf Club.

Mr. E. P. Foden

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Miss Elizabeth McCallan, who is employed by Henlys, Limited, was adjudged Miss Motor Show 1960 at the annual Motor Show dance organised by the Motor and Cycle Trades Benevolent Fund (B.E.N.). The February 6 performance of the Wembley ice show next year is to be Motor and Cycle Trades night and B.E.N. will benefit.

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The motion to be debated with London Midland Region Lecture and Debating Society on November 23 will be: "That the time has come for British Railways to discourage sundries traffic by freight train." The chairman will be Mr. L. W. Ibbotson, assistant general manager (modernisation), Western Region, B.R.

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The Atlantic Steam Navigation Co., Limited, has appointed Mr. F. B. Bolton, M.C., as chairman of the company and of its subsidiary company, Frank Bustard and Sons, Limited. He succeeds Mr. Claud Barrington, whose death was announced recently. Mr. Bolton, who has wide experience in shipping and commerce, is an underwriting member of Lloyds, a member of the Dover Harbour Board and chairman of the Bolton Steam Shipping Co., Limited.

Mr. Anthony H. Milward, chief executive of B.E.A., with his wife and daughter, seen outside Buckingham Palace after receiving the C.B.E. from H.M. the Queen

On Monday evening Mr. T. G. Gibb, chairman and general manager of British Road Services, presented awards to senior drivers from the South Eastern Division entered in the safe-driving competition of Ro.S.P.A. After the presentations, Mr. R. Rendle, manager of the competition, congratulated the premier award holder, Mr. G. W. Choat, of Victoria Park contracts branch, on his 39-year record. Mr. Rendle said Mr. Choat was one of the two senior members of one of the most exclusive clubs in the country; fewer than 60 professional drivers in Britain held even the Ro.S.P.A. 35-year cross. On November 27 the Association would be considering a suitable award for a 40-year accident-free record, which no one had so far attained.

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LOW LOADER WANTED

35/40-TON LOW LOADER and Unit in good condition. Not later than 1958. Full particulars in writing to the Plant and Transport Manager, John Wight and Co. (Edinburgh), Limited, Earls Gate Works, Grangemouth.

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ENGINEERING graduate preferred; minimum of two years' engineering training essential.

Require two years' varied railroad engineering service, or five years in direct charge of track crews. Will supervise 135 men maintaining 45-mile railroad, assign work, order materials, be responsible for safety, make regular detailed inspections of roadbed and all track on main line, sidings and yards, bridges, tunnels, etc. Will make engineering calculations relating to maintenance and use of structure and equipment. Must speak Spanish. Married or single candidates acceptable.

Excellent opportunity large copper company, Chile, South America. Two-year contract with transportation both ways for you and family. Base salary $825.00 to $650.00 per month depending upon age and experience of applicant. Box No. 3846, MODERN TRANSPORT, 3-16 Woburn Place, W.C.1.

IMPORTANT CONTRACTS

Bus Export Orders

SUBSTANTIAL overseas orders for buses are again reported by the two leading British manufacturers, A.E.C., Limited, having announced a repeat order from Lisbon Electric Tramways for 30 Regent V double-deckers and Leyland Motors, Limited, a repeat order from Ceylon Transport Board for 439 Comet single-deck chassis. The A.E.C. Regents for Lisbon will be equipped with 11.3-litre diesel engines and Monocontrol semi-automatic transmission. They will join more than 200 Regents already in service and bring the Lisbon operator's A.E.C. fleet to over 300 vehicles. Ceylon Transport Board's fleet of Leyland Group vehicles will be increased to nearly 1,400 by the new contract for Comets, which is worth £750,000 and was strongly contested by German and Japanese manufacturers. The order also includes an additional quantity of Leyland O350 diesel engines for fitting to vehicles of other makes in pursuance of the board's policy to standardise the O350 engine. The new chassis will be fitted with operator-built bodies equipped with Beclawat windows and other British-made components.

£1 Million Czechoslovak Order Confirmed

Formal ratification is announced of a contract, worth just under £1 million, obtained from Strojimport and Polytechna of Prague, Czechoslovakia, by the Vickers and H. J. Zimmer joint company—High Polymer and Petrochemical Engineering, Limited—for a nylon tyre-cord plant. The process and design for the plant will be supplied by H. J. Zimmer Verfahrenstechnik, Frankfurt.

Four More Boeings for Lufthansa

The German airline Lufthansa has placed on order with Boeing Airplane Company for four Boeing 720B jet aircraft to cater for expected expansion. The new aircraft—shorter range versions of the Boeing 707—will be used on the carrier's medium to long routes, supplementing four Rolls-Royce Conway-engined 707s in service and a fifth 707 and four 720Bs on an earlier order expected to be in service by next spring.

Reiver Fleet Extended

Russell of Bathgate, Limited, has ordered 12 Reiver haulage chassis and three Reiver tipper chassis from Albion Motors, Limited. The vehicles will be powered by the new 125-h.p. Leyland Power-Plus 400-S diesel engine. Since the beginning of this year, Russell of Bathgate has purchased 55 of these low-weight six-wheeled chassis. Other Albion orders include one from the Public Works Department of Malaya for a further 30 Chieftain tipping chassis, which will be fitted with Edbro-B and E. tipping gear.

Scottish Region Contracts

The following contracts have been placed by the Scottish Region of British Railways:

James Miller and Partners, Limited, Edinburgh, 2, for reconstruction of bridge at Uddingston and two bridges at Edinburgh, and grading of hump areas at Millerhill.

Ellis and McDougall, Glasgow, C.4, for two goods lifts at Perth Station.

Concrete (Scotland), Limited, Falkirk, for precast concrete units for nine bridges.

Scottish Construction Co., Limited, Edinburgh, for precast concrete units and prestressed concrete beams for five bridges.

Jas. Campbell and Son, Inverness, for diesel fuelling and maintenance facilities, Eastfield motive power depot, Glasgow.

Butler Machine Tool Co., Limited, Halifax, for two rail planing machines, Kilmarnock permanent way workshops.

Conveyancer Fork Trucks, Limited, Warrington, for two diesel-driven 2-ton fork-lift trucks.

Scottish Machine Tool Corporation, Limited, Johnstone, for heavy-duty wheel lathe, Townhill wagon repair depot, Dunfermline.

Costain Concrete Co., Limited, Newmains, for prestressed concrete beams and precast concrete units for 11 bridges.

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PUBLIC WORKS EXHIBITION

(*Continued from page* 17)

collector body designed to cater for high-bulk low-weight refuse. Fitted with hydraulic compression gear of high efficiency, it is available in a range of capacities from 11-15 to 22-30 cu. yd.

The new low-loading forward-control Bedford TK 6-ton chassis with 17-in. tyres equipped with 16-24 cu. yd. Eagle Compressmore body is shown on the stand of Vauxhall Motors, Limited. Features are a loading height of only 4 ft. 6 in., new high-capacity hydraulic system giving shorter compression cycle time and seven-man crew cab. On the Eagle Engineering stand the company's Speediload system and dustless loading attachment, also on Bedford 6-ton TK chassis, is shown.

Dempster-Dumpster and Dumpmaster equipment is shown by Powell Duffryn Engineering Co., Limited. Dumpster equipment covers a whole range of vehicle-mounted container-handling units for lifting, carrying and dumping containers of varying types and sizes for refuse or other materials. The Dumpmaster system comprises compaction bodies of varying size up to 30 cu. yd., containers of from 1 to 6 cu. yd. capacity and container-handling gear.

New Engines

Among new power units developed for industrial and specialised-vehicle application are examples from Perkins, Dorman, Lister and Cummins. Perkins diesel engines, as always, power a large number of vehicles and machines at the show, including Karrier, Dennis, Shelvoke and Drewry, Lewin and Yorkshire, while on the Perkins stand a Three 152 36-h.p. engine and the industrial version of the direct-injection Six 354 of up to 112 b.h.p. and 260 lb./ft. torque are given a first public showing. The Dorman engine range is extended upwards by the introduction of a turbocharged V-12 unit for outputs of up to 685 h.p., while two new Cummins six-cylinder units give 240 h.p. normally aspirated and 380 h.p. turbocharged. R. A. Lister widens its range of air-cooled diesels with four- and six-cylinder units of 19 and 72 h.p. respectively.

An obvious trend of design at the current exhibition is the much wider availability and application of hydraulic transmission in construction vehicles, plant and machinery; without an actual count it appears that a majority of such equipment shown is so fitted. Hydrodynamic transmission units are shown by British Twin-Disc, Rolls-Royce and Brockhouse, while Self-Changing Gears and American Allison equipment is seen fitted to various machines. Hydrostatic transmission is shown by the Dowty and Lucas companies. A wide and interesting range of Brockhouse torque-converter-mechanical transmissions includes a new unit comprising an 1150 converter and two-forward-two-reverse-speed layshaft gearbox for torque capacity of up to 120 lb./ft. fitted to a Perkins Four 99 diesel engine. Lucas hydrostatic equipment is shown driving the mixing drum of a Winget concrete mixer and also on a Land-Rover to drive a Rolba snow plough. Lucas, Dowty and Plessey hydraulic equipment also figures widely in control mechanisms on exhibits throughout the show.

SHIPPING and SHIPBUILDING

Cost of Slow Turnround

HOW great are the losses caused by delays in the turnround of ships and vehicles was stressed by Mr. R. Stewart MacTier, chairman of the Liverpool Steamship Owners Association, at the annual dinner of the Merseyside section of the Institute of Transport in Liverpool on November 11. Shipowners, he said, had to carry huge overheads represented by the capital cost of modern ships, and consequently had every inducement to cut down the time spent in port. Ships could only earn their keep when they were at sea; a liner was only 185 days at sea in any one year, which meant that on 180 days they were tied up in port. That figure was no better than it was before the war when ships cost only one quarter or one fifth of what they did today.

This problem reflected itself at the docks where one could always see a vast number of immobilised vehicles. It was just as important for road and rail operators to keep their vehicles moving as it was for shipowners to keep the vessels at sea. The dock areas of all ports, designed many years ago, were the legacy of the past and obviously a vast capital expenditure would be involved in carrying through any form of modernisation in port installations. It was not commonly recognised that the rate of turnround of ships and vehicles must have a profound effect on handling charges of both imports and exports and therefore was a consideration of the utmost importance.

Increased Fares to Ireland

AS a result of the wage increase following the recent seamen's strike and other substantial increases in working expenses, British Railways finds itself obliged to raise passenger fares on the shipping routes between Great Britain and Ireland on and from December 1. In fact the increases are very small, ranging from 6d. to 2s. on single fares across the Irish Sea.

Manning Scales in Colombo

THE next major labour move in the Port of Colombo to be taken by the Minister of Nationalised Services, it is optimistically forecast, will be to reduce the number of men per labour gang and create a norm for output on a monthly wage basis. At present the number of men per gang is 16. The Minister says that the normal number of men in a gang should be 10. The creation of a norm for output "will assure that a given quantity of work will be done for a given wage."

Ocean Travel Fortnight

NOVEMBER 14-26 is the fourth annual "Ocean Travel Fortnight." It represents a combined effort by shipping lines and travel agents to create and promote public interest in sea travel. Nearly 900 agents in all parts of the United Kingdom take part, acting as temporary information offices on all questions of routes, facilities and services by sea. Background information for their use has been supplied by all shipping lines taking part in the fortnight. For members of the public seeking information, all agents concerned are devoting their window space to sea publicity.

Turbine Turning Gear

AUTOMATIC turning gear manufactured by Associated Electrical Industries, Limited, is fitted in the new P. and O. liner *Oriana*. It is provided to turn the rotors of the ship's turbines at a very slow speed, thus preventing shaft distortion that may occur when the rotors are allowed to cool or warm up in a stationary position. This precaution can be taken, of course, by partially opening the turbine stop valves to produce some rotation of the rotor. This method, however, is difficult to control, and is likely to cause unwanted rotation of the propellers, and consequent interference with the manoeuvring of the ship. In contrast, the AEI automatic turning gear permits very slow operation, say corresponding to one revolution of the propeller in ten minutes. It is controlled hydraulically from the main manoeuvring platform, and can be engaged and disengaged in a matter of seconds. The mechanism consists of an electric motor connected to one of the turbine pinion shafts through a combined spur and worm reduction gear and a male and female toothed clutch. Complete clutch engagement is ensured by a relay system. This equipment was first fitted to ships in the early 1950s.

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FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations

Martin Walter

Martin Walter, Limited, has declared an interim dividend of 7½ per cent, less tax. This is the same as last year but on the capital as increased to £500,000.

Tube Investments

Group net profit of Tube Investments, Limited, in the year ended July 31, 1960, was £8,100,735 (£6,458,460) and the total ordinary dividend for the year is 14 per cent.

Barton Transport

Net profit of Barton Transport, Limited, for year 1959-60 is £57,270 (£54,799) and deferred dividend is 15 per cent (12½ per cent).

Shelvoke and Drewry

Shelvoke and Drewry, Limited, is paying a final dividend of 10 per cent, making 15 per cent for year ended July 31, 1960 (same). There is a proposed one-for-five scrip issue. Profit was £120,273 (£113,682), before tax £51,379 (£48,980). To general reserve £25,000 (same), new designs—special expenditure £10,684 (nil) and off jigs £5,000 (same). Forward £41,110 (£40,376).

Dennis Brothers

The directors of Dennis Brothers, Limited, recommend a final dividend of 5 per cent (same) making with the interim dividend of 5 per cent a total distribution of 10 per cent for the year 1959. Profits for the year were £52,197 (£69,010) including £1,480 (£7,340) reserve for taxation no longer required. Income tax £39,000 (£15,000); profits tax £10,500 (£4,500); income tax reserve for equalisation of initial allowances credit £600 (cr. £200). Development expenditure carried forward in work-in-progress £47,341 (nil); carry forward £429,335 (£423,152).

Ford Motor

The Ford Motor Co., Limited, of England, has received a letter from the Ford Motor company of U.S.A. (already the owner of approximately 54·6 per cent of the British company's £39,024,248 issued ordinary share capital) informing it of the intention to make an offer to purchase for cash all of the 17,726,804 ordinary stock units not already owned at the price of approximately 145s. per unit. The objective is to obtain greater operational flexibility and enable American Ford better to co-ordinate its European and American manufacturing facilities and integrate further product lines and operations on a worldwide basis. Although the offer relates only to ordinary stock, the British Ford company announces that it will redeem the 3,678,925 4½ per cent redeemable preference 16s. shares on July 31, 1961, at the then applicable redemption price of 16s. 3d. per share.

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